# User Interface Manual (UIM)

**Version 1.1**

**for the**

# GOES

# Data Collection System Automatic Processing System

# (DAPS)

**Prepared by:**

**Integral Systems, Inc. (ISI)**

**5000 Philadelphia Way**

**Suite A**

**Lanham, MD 20706**

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# 1. INTRODUCTION.

## 1.1. Organization.

This document defines the USER interface requirements and capabilities of the GOES DCS Automatic Processing System or the DAPS. This manual supercedes the old GOES DCS Data Processing System (DCS/DPS) User Interface Manual dated July 1, 1984. On October 25, 1989 the DCS/DPS was decommissioned. Hopefully, the DAPS will serve the DCS user well into the future.

The DAPS User Interface Manual (UIM) is organized as follows:

a. Section 2.0 Systems Overview. Providing a brief review of the GOES DCS and an overview of the DAPS.

b. Section 3.0 DAPS USER Online Interface. Defining the DAPS async dial-in communications circuit requirements and the specific DAPS USER commands available with examples for each.

## 1.2. DAPS User Requirements.

For many existing GOES DCS users the DAPS represents an evolutionary change from the old DCS/DPS. The DAPS enables all users to retrieve DCP message (MSG) file data, to define and maintain up to five (5) DCP message retrieval or User Network Lists (UNL), and to send and/or receive mail messages to/from the DAPS Operator or Manager. Since there are restrictions with each of these features, users should read the notes included with the COMMAND syntax and heed the cautions.

The DAPS contains UNLs for all DCS users. At the onset of DAPS operations each DCS primary user or DCP owner had at least one UNL defined. For new or secondary DCP data users the UNLs must be defined as set forth in this manual using the ADD command.

Users are cautioned not to make their UNLs unnecessarily long - no greater than 100 DCP addresses per UNL is suggested. The reason for this is that the DAPS is presently configured to allow up to 2000 messages to be disseminated per DOWNLOAD command. Therefore, users must retrieve their data such that the 2000 message limit is not reached. If the limit is reached the user will have to determine the DCP address(es) to

which data was not received and request another DOWNLOAD.

**NOTE: If your data retrievals are at less than 48 hours intervals you should heed this caution.**

Although every DCS user can receive data from any valid GOES Data Collection Platform (DCP) and view any DAPS Platform Data Table (PDT) record, only the DCP owner has access to change or update a DCP field entries. As per the DCS user's Memorandum of Agreement (MOA), DCP owners are responsible for their respective PDT records. Consequentially if the DCP field entries are incorrect secondary users should contact the platform's owner and not NESDIS. Further NESDIS only disseminates DCP data in raw form as it is received from the DCP with no post processing and is not responsible for the DCP's data content or its accuracy. For further information concerning a specific DCP's data content, the secondary user should contact the DCP owner identified in the PDT record.

**NOTE: If the DCP record is identified as INCOMPLETE than a type "N" or PDT RECORD IS INCOMPLETE message will accompany each message received by the platform.**

To access the DAPS each user is required to have a Memorandum of Agreement (MOA) and a User Data Table (UDT) record. To signon to the DAPS users must enter a valid Username and Password combination. Upon signon the DAPS opens the respective users' UDT record, notifies the user as to mail in the system, displays any system status bulletins issued since the last user signon, and provides the ">" prompt for user entry. Each DAPS user is responsible for their UDT. Should a user's operating requirements or representatives change, each user is expected to maintain or update their UDT field entries.

DCP owners of either primary or secondary interrogate DCPs are provided specific COMMANDS that enable manual interrogation or command of the respective DCP.

This manual is applicable to the DAPS user dial-in interface only. The requirements to access the DAPS National Weather Services (NWS) Telecommunications Gateway services circuit are not defined herein.

## 1.2 DAPS User Assistance and UIM Comments.

If you experience line connection problems with the Wallops CDA Station please contact the DCS operator/technicians on either (804) 824-3552 or (804) 824-3702. Occasionally, it may require more than

one call to receive a **CONNECT** from these circuits. Also from 14:00 to 16:00 hours Eastern time line usage on the system is generally the highest. If you need to access the system during this time you should set your modems time out delay to at least 70 seconds.

During the connect process the DAPS modems automatically establish the circuit's data rate as either 300 bps, 1200 bps, 2400 bps or 9600 bps and determine if the Microcom Networking Protocol (MNP) error checking should be enabled. To accomplish this takes from 15 to 20 seconds after the **CONNECT** is made. It should be noted that the modems will establish communications at the fastest reliable data rate determined at the circuit connect time (e.g. it may force your modem to a lower data rate should local conditions warrant).

If you are experiencing problems with a specific DAPS COMMAND(s) or have questions concerning their application, first call the DAPS operators and describe the problem(s). If the problems are re-occurring by multiple users the operators have been instructed to notify the DCS systems manager and the DAPS project office for resolution and/or correction.

**NOTE:** **All the COMMANDS described in Section 3.0 of this UIM have been tested by NESDIS. Users desiring to utilize the SUBMIT command for batch uploads or to send a file to the DAPS are cautioned to have equivalent if not the same communications software configured precisely as defined in Appendix E. The SUBMIT command will not work unless the communication formats established between each computer are equivalent. Also, on some of the communications packages an extra line feed or carriage return is generated in sending an ASCII or DOS file to a remote computer. If your computer system should generate this extra LF or CR with SUBMIT, the DAPS will reject all additional commands after the situation is detected.**

# 2. SYSTEMS OVERVIEW.

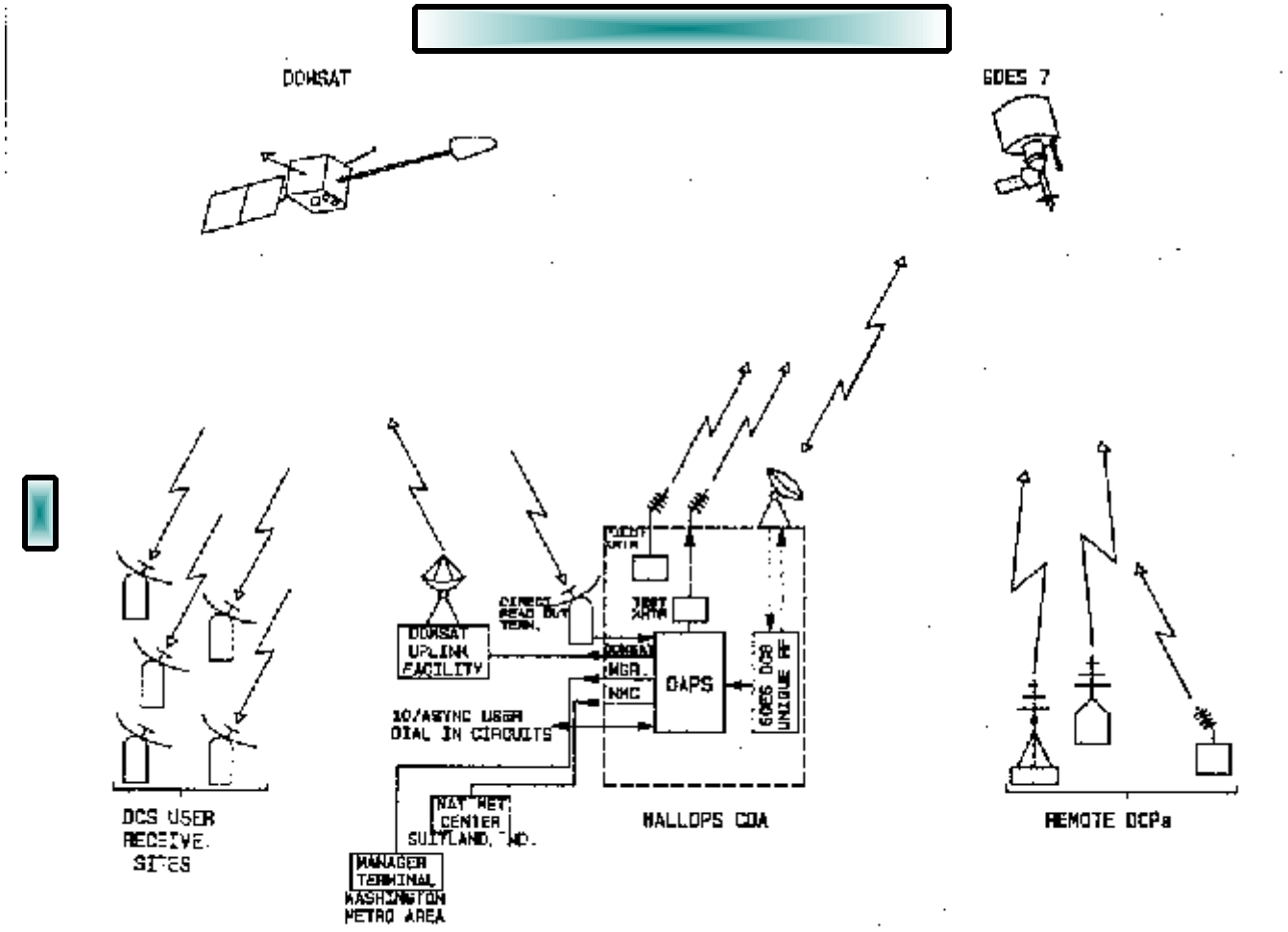
## 2.1. GOES Data Collection System (DCS) Background.

The GOES system supports a radio relay or DCS. The DCS enables a large variety of environmental data to be relayed from point sources, Data Collection Platforms (DCP), which are land, sea, or mobile based through the GOES geostationary satellite and back to Earth, from where these data are selectively disseminated to the systems' user.

The GOES DCS consists of three major subsystems - the Data Collection Platform Radio Sets (DCPRS), the GOES spacecraft transponder, and the Wallops Command and Data Acquisition (CDA) GOES DCS ground equipment. The Wallops CDA equipment may be broken down into two groups - the RF front end equipment and the DCS computer equipment or DAPS. Each of these subsystems performs dedicated data transfer handling and processing functions in the GOES DCS (see figure 2-1).

The DCPRSs are small 401 MHz transmitters interconnected to one or more environmental sensors. The DCPRS prime function is to serve as the DCS data uplink to the GOES satellite. Each DCPRS is uniquely identified by at least one code address and transmits a BPSK data stream at 100 bps. Currently there are four types of platforms supported by the DCS. The most distinguishing feature between DCPRS types is the transmit enable method employed. The Self-Timed (S) DCPRS type transmits sensor data on a periodic basis at prescribed times. The Random Reporting (R) DCPRS type transmits at randomized times with the ability to "adapt" its reporting rate as sensed conditions change. The Interrogate (I) DCPRS type transmits data in response to a specific command signal, generated at Wallops, uplinked via a DCS interrogate modulator and the station's S-Band transmitter, and then received by the respective DCPRS. The DCS interrogations are generated in response either to a user's request or from a pre-defined interrogate schedule. The Dual (D) DCPRS type is a platform with characteristics that are identical to the S DCPRS type. It differs from the S platform in that duals are assigned to both GOES satellites, are generally deployed on mobile vehicles, and do not routinely transmit on a regular basis. Some DCPRS are assigned two platform addresses: primary and secondary. Each of these addresses corresponds to a different platform type. These DCPs can operate as either one of the two following combinations: S or I type, or S or R type. For platforms with primary and secondary addresses, a primary and secondary type designation is also provided in its DCS record or PDT record. In order to manage platforms that operate as different types, the PDT also contains a primary and a secondary channel assignment designation, such that S platforms operate on one channel, while I or R platforms operate on another. In general, only one platform type (I, S, R, or D) is assigned to a given DCS channel.

**FIGURE 2-1: GOES DATA COLLECTION SYSTEM**



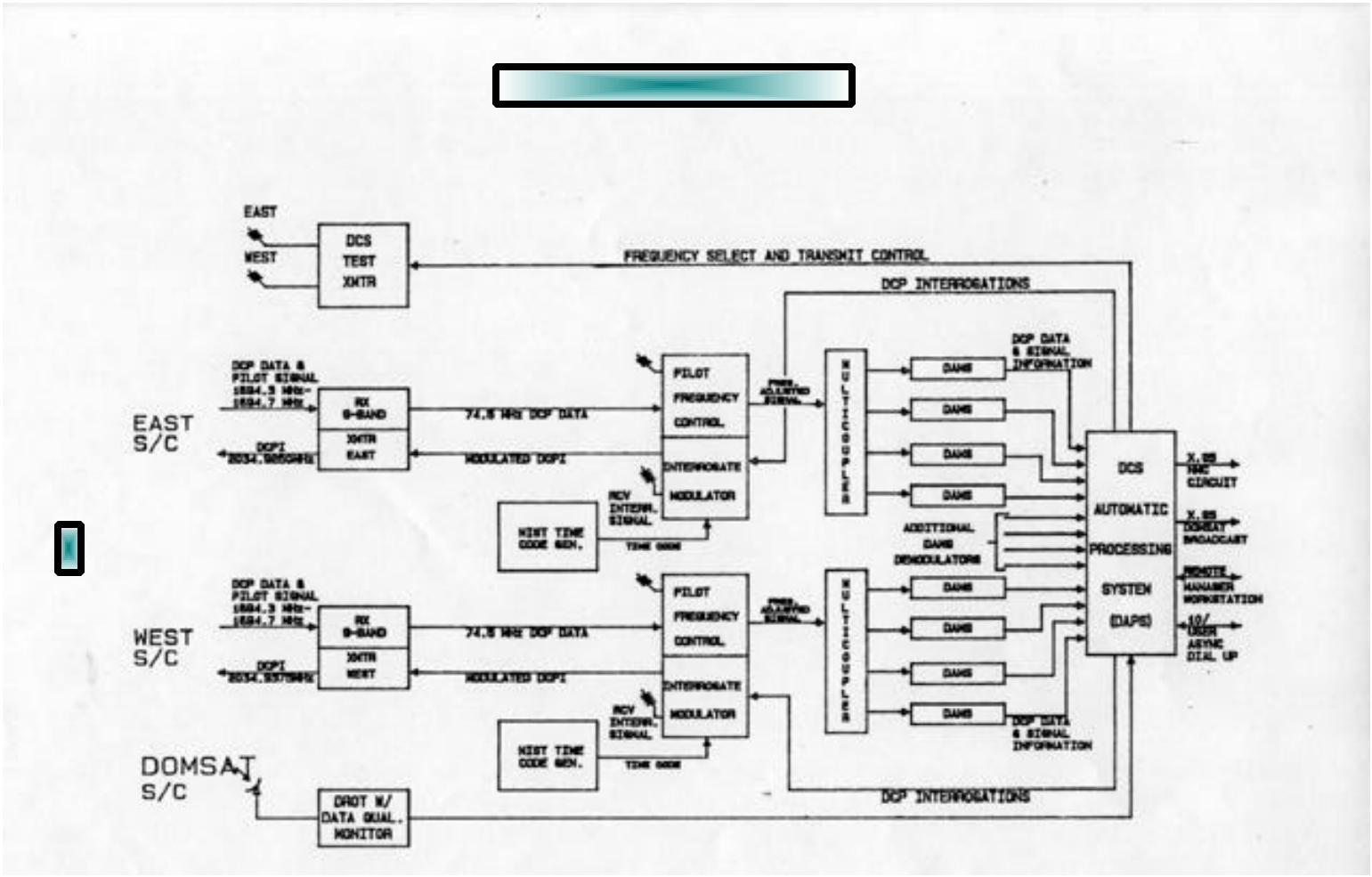
In general two (2) GOES satellites support the DCS. During equinoxes a third (GOES central) satellite may also be used. Each GOES satellite provides the RF transfer link between the DCPRS and the Wallops Station. They upconvert DCPRS data from UHF (401.9 MHz) to S-band (1694.5 MHz) and downconvert the DCS data collection platform interrogate signal from S-band (2034.9 MHz) to UHF (468.8 MHz).

The DCS occupies 400 kHz of satellite transponder bandwidth. This bandwidth is subdivided via frequency division multiplexing into 200-1.5 kHz domestic channels (channels 1-200) and 33-3 kHz international channels (channels 202-266, even numbered only). The international channels (for type D DCPs) are assigned to both GOES satellites.

The Wallops CDA GOES DCS RF front end equipments include: three interrogate modulators (IM), a frequency control subsystem, DCS test transmitters (TT) and 12 Data Acquisition and Monitoring Subsystem (DAMS) units with 10 demodulators in each (see Figure 2-2). Two of the IMs, GOES East and GOES West, interface to the DAPS and to the GOES S-band antenna systems. These modulators receive DCP addresses and/or commands from the DAPS, generate a pre-defined interrogation data message at 0.5 s intervals which is phase modulated ± 60E at 74.9 MHz, and phase lock the uplinked interrogate signal to ensure frequency stability. The interrogate signal uses the S-band transmitter combiners for uplink to the satellite and uses the GOES DCS UHF receive subsystems to maintain interrogate frequency control.

The DCS frequency control subsystem compensates for frequency translation errors in the satellite (which can be several times a DCS channel's width) and for variations in the overall system gain. It transmits a 401.85 MHz pilot carrier which is referenced to the CDA station's 5 MHz timing system's frequency standard. The resulting received DCS signal contains the pilot and the satellite frequency error introduced in the translation. The frequency control subsystem isolates the received pilot signal in a narrowband filter, amplifies it, and then phase compares it with the 5 MHz station standard. From this process a phase error signal results. From this process the pilot signal is set to 5 MHz. The compensated 5 MHz signal is then fed to the DCS multicouplers which in turn feed the DAMS demodulators. The maximum output level of the multicouplers is - 5 dBm which is controlled by an AGC amplifier that minimizes the effects of channel loading and wideband noise.
The GOES DCS test transmitters (TTs) are designed such that they can transmit on any GOES DCS channel manually via operator command or automatically via the DAPS. When commanded the DCS 100 bps test transmitter sends a canned message to the satellite. The resulting message is then received, verified, and checked by the DAPS. If a message is received in error or not received, an error is posted. The DAPS tests each active channel every two hours. The DCS TT insures that all active DCS receive

FIGURE 2-2 WALLOPS CDA STATION



channels are functioning properly. In the automatic mode the DAPS is designed to minimize interference with DCPs operating on self-timed channels. The second DCS TT has advanced capabilities to test the new high data rate DCS channels and to be used for channel blocking activity via the DAPS. If a DCP is detected to be operating without proper authorization, NESDIS operations management are able to detect this event and issue an automatic blocking command to inhibit the DCP owner and secondary users from receiving any useful data from the GOES DCS.

The DCS DAMS demodulators can receive all 233 DCS channels downlinked from the satellites, demodulate the individual DCPRS messages, and multiplex these data for ingest into the DAPS computers. The current DCS demodulators or DAMS units also perform four real-time or DAMS measurements on all DCS messages as they are ingested. These involve the data's signal strength, frequency (relative to channel center), modulation index, and data quality. These data quality measurements are appended to each message as it is multiplexed for ingest into the computers. For further information see Appendix A.

When the DAPS disseminates DCP message data, it not only sends the four DAMS data quality measurements but also provides two ASCII characters for an Intermediate Frequency Presence Detector (IFPD) status for each message. At present the IFPD feature is not operational and therefore the DAPS outputs a hardwired "FF" for the IFPD. When this feature becomes operational the IFPD characters will indicate that the following carriers or receive Phase Lock Loops (PLL) are locked on the respective GOES S/C:

| BIT | INPUT SIGNAL |
|---|---|
| 1 | SPARE |
| 2 | SVAS |
| 3 | WEFAX |
| 4 | S/C COMMAND |
| 5 | DCPI |
| 6 | DCPI PLL |
| 7 | PILOT PLL |
| 8 | SPARE |
| no signal | 0 |
| signal present | 1 |

Aside from the items identified above, the DAPS equipments perform many key real-time data handling, processing, and data base management functions (see Figure 2-3).

A list of DAPS functions is provided below:

A. Contains the DCS Data Base Management System for - 100,000 PDTs, 5,000 UDTs, and 5,000 MOA records.

B. Enables the DCS manager, operator, and operating agency official to selectively access, review, edit, or update data base entries.

C. Ingests DCP data from up to 27-100 bps DAMS units, 10-1200 bps, 10-300 bps four sub-channel random reporting demodulators.

D. Maintains all DCP message data for up to 72 hours.

E. Disseminates all DCP data to the DOMSAT link and allows DCS telephone users selective data access via 10 300/1200/2400 bps async telephone circuits. Also provides, if requested by **DOMSAT users only**, for the retransmission of selected portions of data.

F. Monitors the quality of all DCS platform message data ingested, DCS Demodulator status, communications circuits, etc.

G. Compiles real-time statistics over short and long term on all data ingested and all data disseminated.

H. Enables operator or manager to review and edit GOES DCS statistics.

I. Logs all DCS activities - alarms, edits, maintenance, etc.

J. Monitors the arrival of self-timed and interrogated DCP messages as per data stored in the central PDT data base.

K. Contains DCS management utilities to assign and schedule DCPs; to monitor operating agency channel and system utilization; to resolve DCS interference problems; and to prepare DCS management reports with supporting graphics, charts, tables, etc.

L. Retains DCP message data integrity in the presence of failures.

M. Automatically controls the two DCS interrogate modulators (IM) and two TTs.

N. Provides continuous seven day a week 24-hour a day duty with minimal operator intervention.

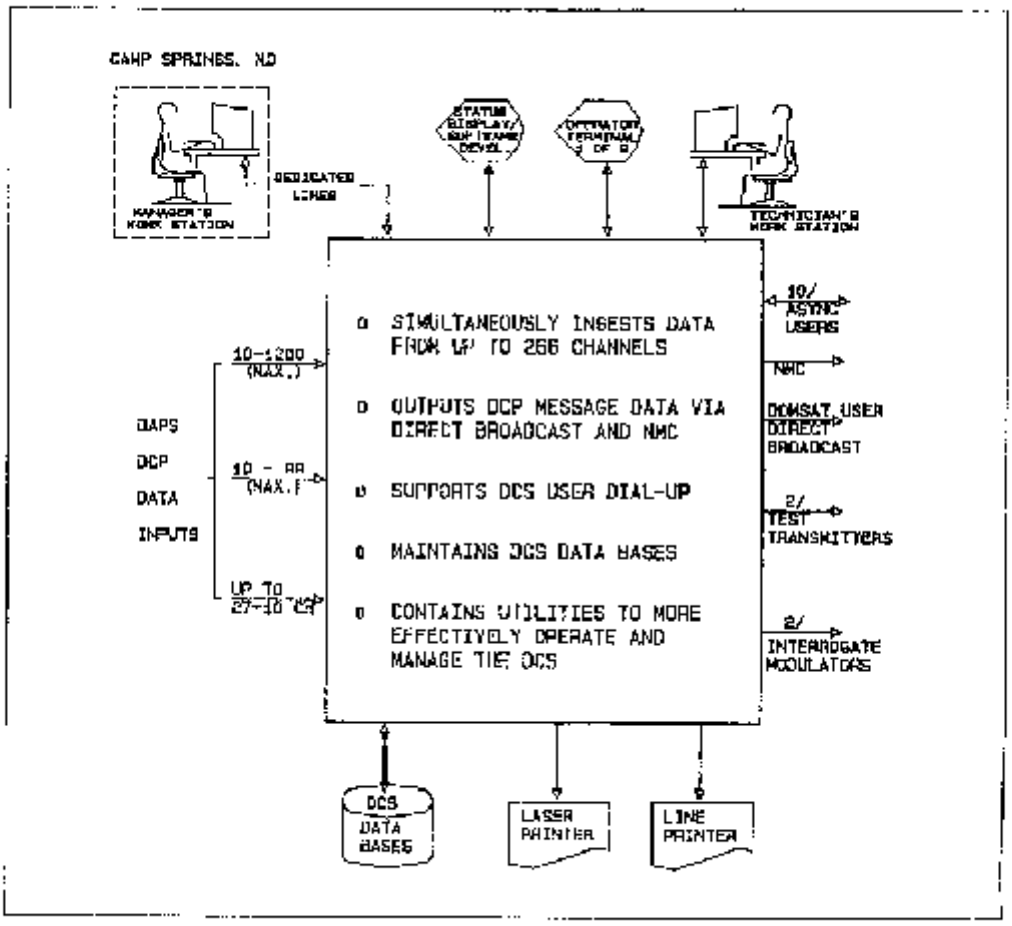
## 2.2. DAPS Operational Configuration

To carry out the functions identified above, the DAPS operates in a fully redundant mode with an automatic failover feature (see Figure 2-4). In general, one of the two computers serves as the PRIME or operational DAPS while the other is configured as a standby or hot backup. To monitor the status between both systems, the DAPS uses a LAN bridge and an RS 232 backup. On these links, the systems constantly transfer status messages. If an error condition is detected in the DAPS software, the backup system will execute an automatic failover or switchover. When this happens, the PRIME DAPS computer's files must be closed and its interfaces disabled. After the PRIME's processes are terminated, the DAPS will designate the BACKUP system as PRIME, switchover all of the operational interfaces, open up the disk files for the BACKUP, and re-establish operator control. During this process, DCP data is being retained by both systems and will be transmitted as soon as the switchover is complete. In general, a DAPS switchover takes less than 90 seconds.

Although automatic switchovers are not expected to occur regularly, they can occur and it will terminate any active user logged on.

Periodically, the NESDIS may desire to force a computer systems switchover (e.g. for hardware maintenance, diagnostic testing, etc.). As normal operating procedure NESDIS intends to issue a BULLETIN informing of the time of switchover at least 15 minutes prior to the event. Operators will also review the DAPS summary screen to determine if any users are logged on and if so try to send them a mail message pertaining to the switchover. Should a user be logged off the DAPS at any time, users should check their mail in the event of SUBMIT activity or request a DOWNLOAD with **2.3. DAPS DBMS Archive** DAPS DBMS archives will be performed on a daily basis. During the archive, all of the systems' global data files must be locked. Since user account records are maintained in these data files, a user will be unable to log-on to the system during the archive. A DAPS archive takes approximately 10 minutes to accomplish and should occur at 3:00 am eastern time. If an archive occurs when a user is attempting to signon a DBMS MAINTENANCE message will occur. After the archive the DAPS operator issues a systems BULLETIN describing this event. time delimiters set to prior to the time of switchover.

**FIGURE 2-3: DAPS FUNCTIONAL LAYOUT**



**NOTE:** **Any interactive changes made by the user prior to a DBMS lockout or via the switchover should be carried out by the system. However, any user commands, updates, etc. issued during the telephone line disconnect process will probably be require re-entry. Should this event occur users should review any data record change (PDT, UNL, or UDT) via a DISPLAY or DOWNLOAD command to determine if the change or update was accepted by the DAPS.**

### 2.4. DAPS Abnormal Response Messages (ARM)

As with the old DCS/DPS, the DAPS issues abnormal response message(s) whenever a DCP operates improperly. In order to more effectively manage the GOES DCS, the DAPS monitors many more DCP error conditions than the old DCS computer system. Events that trigger an ARM include:

A. Timing Errors. Type T - Message received late/early, partially within its window, but straddling the prior or next time slot.

B. Wrong Channel Errors.

Type W - Message received on the wrong channel.
Type D - Messages received on more than one channel.

C. Address Errors.

Type A - Messages w/correctable address errors.
Type B - Messages w/non correctable addresses.
Type I - Invalid DAPS Address (not in PDT).

D. Unexpected Message. Type U - Issued only for S or I type DCPs.

E. Missing Message. Type M - Issued only for S or I type DCPs.

F. Incomplete PDT. Type N - Issued if PDT complete flag is set to "N".

If a DCP message is received with any of the problems identified above, the DAPS will issue an ASCII text message describing the event captured. These ARMs will be issued with the message and time tagged as an

additional message for each condition. ARMs are disseminated over the DOMSAT and the USER dial-in lines under the DCP address to which they are associated. ARMs are not included with the DCP message data transmitted to the NWS. Table 2-1 contains all the error types and associated error text messages used by the DAPS system.

**FIGURE 2-4: GOES DCS UNDER DAPS**

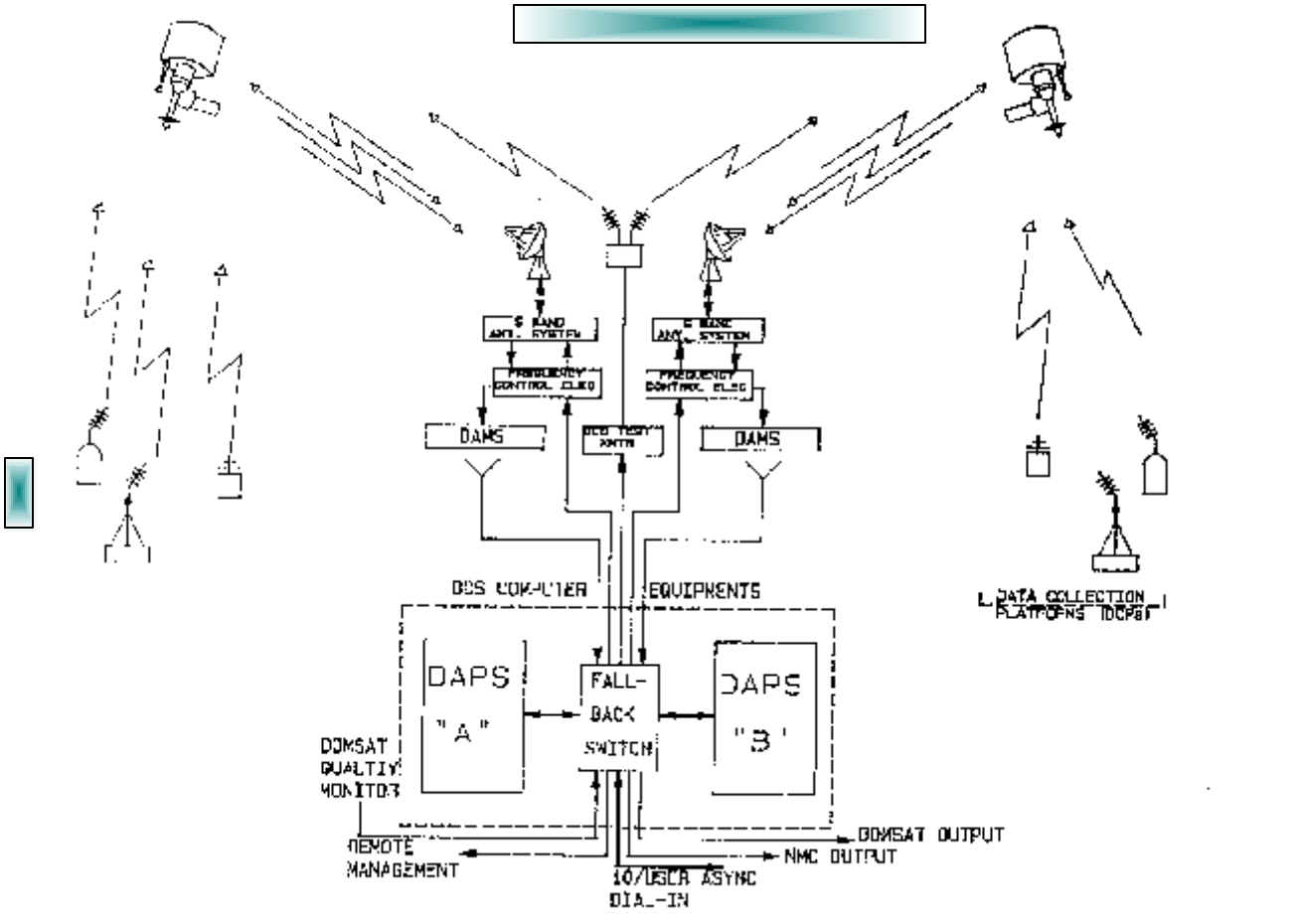


**TABLE 2-1: DAPS ABNORMAL RESPONSE MESSAGES FOR PLATFORM DATA**

| Failure Code* | DAPS ARM DCP Text Message |
|---|---|
| A** | ADDRESS ERROR DURING TEST ON CHANNEL |
| A | DCP ADDRESS ERROR CORRECTED; ORIGINALLY address-x |
| B*** | BAD DCP ADDRESS (NON-CORRECTABLE) |
| C** | TEST DATA COMPARE / PARITY ERROR ON channel-x |
| D | DUPLICATE MESSAGE RECEIVED |
| I*** | INVALID DCP ADDRESS (NOT IN DAPS PDT) |
| M | MISSING SCHEDULED DCP MESSAGE |
| M | MISSING INTERROGATION REPLY |
| M** | MISSING TEST TRANSMISSION ON channel-x |
| N | PDT RECORD IS NOT COMPLETE |
| Q** | BAD QUALITY MEASUREMENTS FOR CHANNEL-x |
| T | MESSAGE OVERLAPPING ASSIGNED TIME WINDOW |
| U** | UNEXPECTED TEST TRANSMISSION ON channel-x |
| U | UNEXPECTED INTERROGATION REPLY |
| U | UNEXPECTED MESSAGE |
| W | MESSAGE RECEIVED ON WRONG CHANNEL |

* More than one Failure Code may apply to a received DCP message.

** Test Transmitter Failure Message. These DAPS ARMs not available to the DCS users.

*** DCP message data with these errors are stored in the DAPS junk queue. Under operational DAPS DCS users do not have access to the junk queue.

## 2.5. DAPS National Weather Service Telecommunications Gateway (NWSTG) Circuit

The DAPS NWSTG circuit is serviced via dedicated telco and dial-in backup telephone circuits operating between the Wallops CDA Station, Wallops Station, VA and Federal Building number four in Suitland, MD.

The DAPS transmits DCP message data to the NWS in the same bulletin format that was used by the previous DCS computer system (see figure 2-5). With the DAPS, however, each DCP message is sent only one time. For this reason, the NWS has generated new routing designators or data descriptors which can be found in each DCP's PDT record. Therefore, most existing DCS users receiving data from the NWS should have had minimal processing changes to receive their DCP message data when compared to the old DCS computer system. Also, users comparing NWS data to the dial-in or DOMSAT data will find it to be in a different format. This may cause problems for users desiring to use the DAPS dial-in for NWS as redundant backup or for users desiring to use the NWS for DAPS backup. Also, note that NWS circuit does not receive any ARMs. This was done to minimize overhead on the 4800 bps circuits. The data rate to the NWSTG circuit was upgarded to 9600 bps in 1996.

### 2.6. GOES DCS Prohibited Characters

As with the old DCS computer system, the DAPS will NUL (00) out any GOES DCS prohibited characters appearing in any DCP data that is received. The prohibited GOES DCS ASCII characters include:

SOH (1), STX (2), ETX (3), ENQ (5), ACK (6), DLE (16), NAK (21), SYN (22), ETB (23), CAN (24), GS (29), RS (30), and ITB(US).

**NOTE:** **If any of these ASCII data characters appear in any DCP data they will be zeroed out upon dissemination. Furthermore, as part of the NOAA/NESDIS DCP certification process DCP's are not suppose to be even able to generate these ASCII characters. If a DCP can or does generate these characters, in normal or pseudo- binary mode, it is operating improperly in the GOES DCS. For completeness figure 2-6 identifies the ASCII data character set.**

## FIGURE 2-5. NWS CIRCUIT CHARACTERISTICS

| SOH | X.25 Beginning Format | Abbreviated Heading | Bulletin Text | CR | CR | LF | ETX |
|---|---|---|---|---|---|---|---|

DAPS to NWS Telecommunication Gateway X.25 Envelop

where: CR = Carriage Return LF = Line Feed
ETX = End of Text character Bulletin Text = DCS Message Data

| SOH | CR | CR | LF | NNN | CR | CR | LF | TTAAii | SP | KWAL | SP | TTGGgg | CR | CR | LF | RS | DCP Address AAAAAAAA | S/? | DDHHMMSS | DCP ASCII DATA | ETX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

NWS Telecommunications Gateway DCP Data Output Format

where: SOH = Start of Header TTAAii = NWS Data Descriptor SP = ASCII Space Character
CR = Carriage Return TTGGgg = Day of Mo., Hr., Min. AAAAAAAA = DCP Address
RS = Record Separator S/?= Space or Parity Error DATA = DCP Message Data
LF = Line Feed ETX= End of Text
DDDHHMMSS = Julian Date & Time

| ASCII DCP Message Data (X-15750 Bytes) | SP | DAMS Date SSFOMQ | SP | Channel S/C XXXZ | CR | CR | CR | LF |
|---|---|---|---|---|---|---|---|---|

DCP ASCII Message Data Format

where : SP = ASCII Space SS = Signal Strength
FO = Frequency Offset M = Modulation Index
Q = Data Quality XXXZ = DCS Channel & S/C id
CR = Carriage Return LF = Line Feed

FIGURE 2-6. GOES DCS ASCII CHARACTER SET

| $b_4b_3b_2b_1$ | $b_7$ $b_6$ $b_5$ | 0 0 0 | 0 0 1 | 0 1 0 | 0 1 1 | 1 0 0 | 1 0 1 | 1 1 0 | 1 1 1 |
|---|---|---|---|---|---|---|---|---|---|
| 0 0 0 0 | | NUL | **\|DLE\|** | SPACE | 0 | @ | P | ` | p |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 0 0 1 | | **\|SOH\|** | DC1 | ! | 1 | A | Q | a | q |
| 0 0 1 0 | | **\|STX\|** | DC2 | “ | 2 | B | R | b | r |
| 0 0 1 1 | | **\|EXT\|** | DC3 | # | 3 | C | S | c | s |
| 0 1 0 0 | | EOT | DC4 | $ | 4 | D | T | d | t |
| 0 1 0 1 | | **\|ENQ\|** | **\|NAK\|** | % | 5 | E | U | e | u |
| 0 1 1 0 | | **\|ACK\|** | **\|SYN\|** | & | 6 | F | V | f | v |
| 0 1 1 1 | | BEL | **\|ETB\|** | ‘ | 7 | G | W | g | w |
| 1 0 0 0 | | BS | **\|CAN\|** | ( | 8 | H | X | h | x |
| 1 0 0 1 | | HT | EM | ) | 9 | I | Y | i | y |
| 1 0 1 0 | | LF | SUB | * | : | J | Z | j | z |
| 1 0 1 1 | | VT | ESC | + | ; | K | [ | k | { |
| 1 1 0 0 | | FF | FS | ‘ | < | L | \ | l | \| |
| 1 1 0 1 | | CR | **\|GS\|** | - | = | M | ] | m | } |
| 1 1 1 0 | | SO | **\|RS\|** | . | > | N | ^ | n | ~ |
| 1 1 1 1 | | SI | **\|US\|** | / | ? | O | _ | o | DEL |

ASCII CONTROL CHARACTERS

**ACK** Acknowledge
**BEL** Bell
**BS** Backspace
**CAN** Cancel
**CR** Carriage Return
**DC1=X-ON** Control 1
**DC2=TAPE** Control 2
**DC3=X-OFF** Control 3
**DC4=TAPE** Control 4
***DEL=RUB OUT** Delete
**DLE** Data Link Escape
**EM** End of Medium
**ENQ=WRU** Enquiry
**EOT** End of Transmission
**ESC** Escape
**ETB** End of XMIT Block
**ETX** End of Text
**FF** Form Feed
**FS** File Separator
**GS** Group Separator
**HT** Horizontal Tab
**LF** Line Feed
**NAK** Negative ACK
**NUL** Null
**RS** Record Separator
**SI** Shift In
**SO** Shift Out
**SOH** Start of Heading
**STX** Start of Text
**SUB** Substitute
**SYN** Synchronous Idle
**VT** Vertical Tab
**US=ITB** Unit Separator

_____ **Non-printable Character - non-displayable via ASCII terminal**

**|_____|  Prohibited Character - not output via the DAPS (always NUL)**

*not strictly a control character

## 2.7. DAPS DCP Message Dissemination

The primary method for users to receive their DCP message data from the DAPS is via the DOWNLOAD command. With the DOWNLOAD command the DAPS assumes the user is transferring their desired data from one to another computer. The primary DAPS DOWNLOAD method is via the use of one of a user's five UNLs. When data is DOWNLOAD via the UNL without any user defined time parameters, the DAPS automatically updates the user's UDT dissemination parameter for the respective UNL. If a user DOWNLOADs via using a specified time range the latest time specified by the user is then placed in the respective UDT entry for that UNL.

Under DAPS a user can also look at a specific DCP's message data via the DAPS DISPLAY MSG command. With the DISPLAY command the user's data is separated from the DAPS header information data. Also, the DISPLAY header contains a field identified as "Xmit Time." This field identifies when this DCP message was output by the DAPS to the DOMSAT circuit. DCP message data output via the DISPLAY command will appear on the user's terminal in a different form from that received via the DOWNLOAD command in that data characters received with parity errors are replaced with a "$" sign. Also, non-printable ASCII characters (e.g. DEL) will appear with as a "$", and prohibited DCS characters will be displayed with a "$". Should a user believe that they are receiving their DCP data in error, they should first retrieve the data via the DOWNLOAD command, second retrieve the data via a DISPLAY command, and then convert the DOWNLOAD data to HEX and look at the specific data characters for discrepancies.

# 3. INTRODUCTION

The DAPS On-line User Interface provides a means for a user to retrieve DCP messages, request retransmission of messages over DOMSAT, update and display tables in the DAPS DBMS containing information about the user and platforms owned by the user, command or interrogate a platform owned by the user, or communicate with the DAPS operator or manager.

## 3.1. Message Retrieval

Each variable-length message received by the DAPS is archived in the Global Message Storage (GMS) file. The GMS is a circular file sized to contain approximately three days or 72 hours of DCP message data. DAPS provides commands to display (DISPLAY MESSAGE_FILE) or download (DOWNLOAD MESSAGE_FILE) entries in the GMS. Additionally, users of the DOMSAT Receive Only Terminal (DROT) may request the retransmission of messages (RETRANSMIT) over the DOMSAT. All of the message retrieval commands provide various selection criteria options. One of the primary differences between the DAPS and the old DCS/DPS is that any DCS user may receive any DCP message received via the DAPS in the last 72 hours as many times as desired.

## 3.2. DAPS DBMS Tables

### 3.2.1. User Description Table (UDT)

The DAPS maintains a table entry for every user in the UDT. Each entry contains information about the type of user (government agency, state agency, etc.), the organization the user belongs to and the name, address, phone, etc. of a user representive. Commands are provided for the user to display (DISPLAY USER_PARMS) or modify (UPDATE USER) his/her entry in the UDT. A list of modifiable parameters for a UDT entry is included in Appendix B.

### 3.2.2. Platform Description Table (PDT)

The DAPS maintains a table entry for every DCP supported by the GOES DCS in the PDT. Each PDT entry contains information about the platform type, channel assignment, channel occupation, owner of the platform, etc. A user may display (DISPLAY PLATFORM_PARMS) any platform entry in the PDT. The owner of a platform may modify (UPDATE PLATFORM) an entry for that platform in the PDT. A list of modifiable parameters in a PDT entry is included in Appendix B.

**NOTE: By using the DOWNLOAD command users receive only those UDT or PDT field entries that may be changed. To receive the entire UDT or PDT record the user must use the DISPLAY or TYPE commands.**

### 3.2.3. User Network Lists (UNLs)

Each DAPS user can create up to five UNLs which may be used for message dissemination. A network list is a list of platform addresses which may be used for selection in a message retrieval request (DISPLAY MESSAGE_FILE, DOWNLOAD MESSAGE_FILE or RETRANSMIT). Commands are provided for a user to add, in part or in whole, DCPs to (ADD NETWORK_LIST), to delete, in part or in whole, DCPs from (DELETE NETWORK_LIST) and to display (DISPLAY NETWORK_LIST or DI UNL X) the contents of a network list.

## 3.3. Dial-in Support

Communication with the DAPS On-line User Interface is via dial-in phone lines. These phone lines are available 24 hours a day under normal circumstances, except during system archiving described in Section 2.3.

There are eight (8) asynchronous dial-in lines available for users on the DAPS system. The lines are supported by Universal Data Systems RM16M-960A/D modems. These modems are capable of supporting 300/1200/2400/9600 bps data rates, and include Level Four Microcom Networking Protocol (MNP) error correction if supported by the user's modem. Since the Wallops CDA Station is serviced by a remote rural telephone central office, users operating without MNP Level 5 modems may receive communications errors at anytime. For this reason, **NESDIS recommends the MNP Level Four class of modem for reliable communications. Users choosing a non-NMP modem should expect the possibility of parity errors, disconnects and "poor" communications. Also, NESDIS recommends that DCS users set their modem's Carrier Detect Disconnect, if accessible, to at least five seconds to minimize systems disconnects.**

### 3.3.1. Communications Parameters

In order to provide the broadest range of support, all remote terminals are assumed to be TTY type and all data transferred will be ASCII. The communications lines are configured as:

**Full duplex, 7 bits, Even parity, 1 Stop bit**

Each line of text output from DAPS is terminated by an ASCII carriage return/line feed (CR/LF) sequence. Lines input to the DAPS should be terminated by an ASCII carriage return (CR) character only or line feed (LF) character **only**. This input factor is especially important when using the DAPS batch file SUBMIT command.

It is assumed that many users will be using some type of PC based communications package (e.g. PROCOM, BITCOM, SMARTCOM, etc.). In order to take advantage of the download and batch processing capabilities provided by the DAPS system, the communications package must have an ASCII file transfer capability. When configuring these communication packages, the following settings, if available, should apply:

a. Translation of carriage return to carriage return-line feed should be disabled for both input and output. The DAPS system supplies a line feed on output.

b. Line wrap should be disabled. DAPS displays contain 80 characters or less.

c. The '>' prompt can be used as the turn-around character for file uploads.

See Appendix E for recommended terminal setups for several widely available communications packages.

### 3.3.2. Dial-in Numbers

The current DAPS dial-in number(s) are:

Data Lines: Main Rotary (757) 824-0105 **(MNP Level 5)**

| | | |
|---|---|---|
| Others: | (757) 824-0125 | (757) 824-0126 |
| | (757) 824-0127 | (757) 824-0145 |
| | (757) 824-0149 | (757) 824-0156 |
| | (757) 824-0162 | (757) 824-0163 |
| | (757) 824-0164 | |

**Operator Line Monitoring or User Assistance (757) 824-0164**

**Operator Voice Lines: (757) 824-3552 and (757) 824-3702**
**24 hours a day 7days a week**

3.3.3. Dial-in Procedure

After a phone connection with the DAPS system has been established, the UDS modems will take up to 15 seconds to connect and setup (e.g. for baud rate, establish error correction capabilities, etc.). After this initialization, press the ENTER key and the following prompt should be received:

AOS/VS 7.64.00.00 / EXEC-32 7.64.00.00 dd-mmm-yy hh:mm:ss @CONx
Username:

At this point, enter your Username, and a carriage return. The DAPS will then prompt you for your Password. Enter your password and a carriage return. After the password has been correctly entered, several lines of system identification text will be displayed. A notification of mail (if any) will be output and a display of bulletins (if any) issued since the last sign-on will also be displayed prior to the appearance of the input prompt. This prompt, '>',

indicates the DAPS system is ready to accept commands. A typical log-on example is provided on the following page (note - the '<CR>' symbol indicates pressing the ENTER key).

### 3.4. Command Entry

This section provides some general information applicable to the entry of all DAPS commands. Information on specific commands is provided in a later section.

#### 3.4.1. Command Line Syntax

Commands are composed of a command keyword and 0 or more command arguments. Commands are free-formatted with one or more blanks (space) used as delimiters between command arguments. The command line itself is limited to **78 characters** and is terminated by an ASCII new line <NL> (also called line feed <LF>) character or carriage return <CR> character. Commands may be extended over as many lines as needed by entering the continuation character, '&', before entering the termination character.

Example: UPDATE USER_PARMS OPR_NAME_FIRST = JIM OPR_NAME_LAST = &
SMITH OPR_PHONE = 321-1234

AOS/VS 7.64.00.00 / EXEC-32 7.64.00.00 22-Aug-90 16:35:00 @CON30
Username: CEMRO1
Password:

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terms of a DGC license agreement which governs its use.

---

Last message change 21-Aug-90 15:41:24

DAPS SYSTEM B
Information on enhancements/modifications for DAPS dial-in users is
available on the DAPS_NEWS display. DAPS_NEWS last updated 8/22/90.

---

Most recent logon 20-Aug-90 22:13:18

*** YOU HAVE MAIL ***

*** BULLETINS ***

329/03:00:56 #O WE WILL ARCHIVE IN 5 MIN
B201 330/11:26:02 #O WE ARCHIVE IN 5 MIN.
B201 331/03:00:13 #O WE WILL ARCHIVE IN 5 MIN.
B201 DISPLAY COMPLETE
>

Comments may be entered on a command line after the comment symbol, '!', or after a continuation character, '&'.

### 3.4.2. Abbreviations

Command keywords may be abbreviated. The shortest acceptable abbreviation is the smallest number of characters, beginning with the first character, that uniquely identifies the command.

Example: **U** may be used to abbreviate **U**PDATE while **DE**, **DI** and **DO** must be used to uniquely identify **DE**LETE, **DI**SPLAY and **DO**WNLOAD, respectively.

Some keywords in command arguments (as opposed to the command keyword itself) may also be abbreviated. Refer to the section on the particular command for more information on command argument keyword abbreviations.

Example: DISPLAY UDT may be used instead of DISPLAY USER_PARMS.

### 3.4.3. Command Arguments

#### 3.4.3.1. Embedded Blanks in Text Strings

When updating a DAPS UDT or PDT parameter, quotation marks (" ") must enclose a text string with embedded blanks. The user must precisely identify the parameter to be updated as shown in Appendix B and enclose any data field entries which contain blank spaces in quotes (" ").

Example: OPR_ADDR = 100_E._ELM_STREET ! No embedded Blanks

OPR_ADDR = "100 E. ELM STREET" ! Embedded Blanks (note blank spaces)

### 3.4.3.2. Date/Time Arguments

For many DAPS command arguments the user may select or specify the date and time range (DISPLAY, DOWNLOAD, DELETE, RETRANSMIT). In such cases, time and date may be input in the following format:

YYDDD/HH:MM:SS

where YY is the year (ex. 89), DDD equals the Julian day of the year, and HH, MM and SS equal hour, minute and second, respectively. Some of these fields may be omitted when entering the argument with default values being supplied. YY and DDD default to current year and current day of the year when omitted. HH MM and SS all default to 00 when omitted. The following examples assume the current date to be day 180 of 1989.

Example: 180/ is equivalent to 89180/00:00:00.

Example: 15 is equivalent to 89180/15:00:00.

Example: 21:30 is equivalent to 89180/21:30:00.

**NOTE: For the DAPS DISPLAY, DOWNLOAD, or RETRANSMIT commands used in conjunction the the User Netwrok List(s), the DAPS will default to the respective UNL's preset time field parameter should the user omit these time arguments on their command line (see UDT). If the user does not retrieve their data for more than a three day or 72 hours period, the DAPS will default to this time field.**

### 3.4.3.3. Optional Arguments

Certain commands accept optional arguments which have default values if not entered. An omitted optional argument is indicated on the command line by using a place holding comma and a space ', ' or a delimiting blank (see Examples).
Example:

```
> DISPLAY MAIL , 261/10:00        ! Use the default value for since
                                  ! time argument

>DO MSG LIST_ID 1 , , G           ! Use the default time arguments
                                  ! Send only good DCP message data
```

In the case where all remaining command arguments are optional and the default values are to be used, the position

holding commas may be omitted.

Example:

```
> DISPLAY MAIL                ! Use defaults for since and until
                              ! time arguments
```

### 3.4.4. Command Line Editing

The following keys provide command line editing capabilities:

DELETE or BACKSPACE - deletes one character to the left of the cursor. Because of the TTY interface, this is displayed on the terminal as an underscore ('_') followed by the cursor moving one space to the right.

**NOTE - the DAPS system expects a ASCII DEL character (octal 177) for a character deletion. Generation of this character by the DELETE and BACKSPACE keys is not uniform among terminals. The underscore echo ('_') will indicate the correct key.**

ESC followed by ENTER - terminates the current command input and deletes the command line.

**NOTE: This feature is especially useful whenever a command sequence is improperly entered or executed. It immediately returns the user to the initial stae or the '>' prompt.**

### 3.4.5. Command Processing

The DAPS system will indicate that it is ready for input by displaying the input prompt, '>'. At this point the user may enter a command. When processing a command, if any required fields are missing the user will be prompted for input. The input prompt, '>>', indicates successive input(s) will be treated as argument field input for the specific command originally entered.

**NOTE: The ESC key followed by ENTER key may be used to exit this mode, '>>', at any time.**

Example: > DISPLAY

ENTER DISPLAY NAME
>>

Additionally, if any argument fields are in error, an error message will be output, the argument field in error will be echoed and the user will be prompted to re-enter the command beginning with the field in error.

Example:
```
> ADD NETWORK_LIST 1 ABCA0123
INVALID PLATFORM ID   ABCA0123
>> ABCD0123
ADD COMPLETE
```

The user may request help on commands by using the HELP command or by entering '?' or '?L' while entering a command. The '?' request generates a single line prompt while the '?L' request generates a full screen help display. Since the DOWNLOAD and SUBMIT commands involve computer to computer data transfer, the HELP files are received via using HELP DOWNLOAD or HELP SUBMIT commands after the '>' prompt.

Example:

```
>  DISPLAY ?
   ENTER DISPLAY NAME
>>?L
  ENTER DISPLAY NAME
```

The following displays are available:

```
USER_PARMS          -    displays the user's entry in the User Description Table.
PLATFORM_PARMS  -    displays an entry for a specified DCP in the Platform Description Table.
>>
```

A command may be terminated at any point in processing by entering the ESC key followed by the ENTER key (or whichever key generates a <NL> or <CR>). The user will be informed of command termination by the informational prompt, 'COMMAND TERMINATED'.

**3.5. Command Summary**

Table 3-1 presents the DAPS commands as they are grouped by functionality. The following sections present individual DAPS commands in detail.

NOTE: The following documentation conventions are used in the command syntax portion of the individual

command descriptions:

Command keywords and command argument keywords are in **UPPERCASE**.

Example: **DISPLAY MAIL**

Required arguments are in **lowercase**.

Example: DISPLAY PLATFORM_PARMS **platform_id**

Optional arguments are enclosed in **brackets**.

Example: DISPLAY MAIL **[since] [until]**

Arguments which may be entered one or more times are followed by two periods (..).

Example: ADD NETWORK_LIST list_id platform_id..

The remainder of this section is dedicated to the specific COMMAND(s) summarized in Table 3-1.

**TABLE 3-1: DAPS COMMAND SUMMARY**

Command Type - MESSAGE RETRIEVAL COMMANDS

| Long Form | Short Form | Comments |
|---|---|---|
| DISPLAY MESSAGE_FILE | DI MSG | Displays DCP messages received by the DAPS system. |
| TYPE MESSAGE_FILE | TY MSG | Provides DCP messages in the same DISPLAY MSG format without page breaks (F command is not needed). |
| DOWNLOAD MESSAGE_FILE | DO MSG | Initiates transfer of messages from DAPS to user terminal. |
| RETRANSMIT | | Initiates DOMSAT user retransmit request. |

Command Type - DBMS MAINTENANCE COMMANDS

| Long Form | Short Form | Comments |
|---|---|---|
| DISPLAY PLATFORM_PARMS | DI PDT | Displays entries in the DAPS DBMS tables. |
| USER_PARMS | DI UDT | |
| NETWORK_LIST | DI UNL | |
| PLATFORM_CHANGES | N/A | |
| UPDATE PLATFORM | UP PDT | Updates entries in the DAPS DBMS USER tables. |
| | UP UDT | |
| DOWNLOAD PLATFORM | DO PDT | Transfers the contents of the USER |
| | DO UDT | DAPS DBMS tables from the DAPS to |
| NETWORK_LIST | DO UNL | the user's PC or receive system. |

**TABLE 3-1: DAPS COMMAND SUMMARY** (CONT.)

| | | |
|---|---|---|
| ADD NETWORK_LIST | A UNL | Adds DCP addresses to a user network list. |
| DELETE NETWORK_LIST | DE UNL | Deletes DCP addresses from network list. |

| | | |
|---|---|---|
| SUBMIT<br>UPDATE PLATFORM<br>UPDATE USER<br>ADD NETWORK_LIST<br>DELETE NETWORK_LIST | SU | Submits DAPS DBMS maintenance commands for batch processing. The following commands may be submitted: |

Command Type - COMMUNICATION COMMANDS

| Long Form | Short Form | Comments |
|---|---|---|
| SEND MAIL | SE MAIL | Sends mail to the DAPS operator/manager. |
| DELETE MAIL | DE MAIL | Deletes mail from the DAPS operator/manager. |
| DISPLAY MAIL<br>BULLETIN | DI MAIL<br>DI BULLETIN | Displays mail or bulletins from operator/manager. |

Command Type - PLATFORM COMMAND/INTERROGATION COMMANDS

| Long Form | Short Form | Comments |
|---|---|---|
| INTERROGATE | I | Interrogate a primary or secondary I type DCP. |
| COMMAND | C | Command a primary or secondary I type DCP. |

**TABLE 3-1: DAPS COMMAND SUMMARY (CONT.)**

Command Type - GENERAL DAPS USER COMMANDS

| Long Form | Short Form | Comments |
|---|---|---|
| FORWARD | F | Displays the next page in a multi-page display. |
| BACKWARD | BA | Displays the previous page in a DAPS multi-page display. |
| HELP | H | Displays a Help menu in either ">" or ">>" DAPS prompt. |

| | | |
|---|---|---|
| BYE | BY | Complete a user session or to sign off the DAPS system. |

Command Type - USER MANAGEMENT/REPORT COMMANDS

| Long Form | Short Form | Comments |
|---|---|---|
| DISPLAY PLATFORM_SUMMARY | NONE | Provides a monthly report to DCS owner agency summarizing the activity of all their DCPs. |
| DISPLAY RADIO_DESCRIPTION | DI RDT | Displays all or each DCPRS radio description entry(s). |
| DISPLAY USER_UTILIZATION | NONE | Provides a monthly summary reprot of channel usage of DCPs owned by the user. |

**NOTE: The TYPE Command can be used in lieu of the DISPLAY Command to eliminate the DAPS page breaks which are generated every 24 lines of text. Also, the TYPE Command affords ASCII file transfer of these reports.**

3.5.1. **ADD** Command

SYNTAX:

**ADD** NETWORK_LIST list_id platform_id..

DESCRIPTION:

The ADD NETWORK_LIST command provides a means for a user to add one or more platforms to a network list. Network lists may be used as a selection criteria in displaying messages, downloading messages and requesting the retransmission of messages over DOMSAT.

ARGUMENTS:

| | | |
|---|---|---|
| NETWORK_LIST- | | (short form: UNL) keyword indicating the addition of platform(s) to a network list. |
| list_id | - | indicates a network list number from 1 to 5. Enter a number from 1 to 5. |
| platform_id | - | specifies a valid DCP address. Enter ABCD1234. |

EXAMPLES:

1. ! Add 4 platforms to network list 1
   > ADD NETWORK_LIST 1 ABCD0123 ABCD0124 CE12E630 CE9812F0
   ADD COMPLETE

2. ! Add 5 platforms to network list 5
   > A UNL 5 A1B2C3D4 AB12840E CE12E630 CE9812F0 4512CE08 +
   ADD COMPLETE
   >

COMMENT:
The DCP must have a valid DAPS address or PDT entry in order to be added to a network list.

3.5.2. **BACKWARD** Command

SYNTAX:

**BACKWARD**

DESCRIPTION:

The BACKWARD commands is used to display the previous page (20 lines) of a DAPS multi-page display.

ARGUMENTS:

None

EXAMPLES:

> BACKWARD

> BA

### 3.5.3. **BYE** Command

SYNTAX:

**BYE**

DESCRIPTION:

The BYE command is used by the user to sign-off the DAPS system.

ARGUMENTS:

None

EXAMPLES:

```
> BYE

> BY
```

3.5.4. **COMMAND** Command

SYNTAX:

**COMMAND** platform_id cmd_word

DESCRIPTION:

COMMAND may only be used by the interrogate DCP platform owner to command the desired DCP. This command is restricted and can only be used by the owner of the platform.

ARGUMENTS:

platform_id - DCP address of the platform to be commanded.

cmd_word - command word to be sent to the DCP. The command word may have a value of 1 - 4096 (decimal).

EXAMPLES:

> COMMAND ABCD0123 0003

! Send command word 0003 to DCP ABCD0123

> C ABCD0123 0003

! Send command word 0003 to DCP ABCD0123

COMMENTS:

1. No commanding of a platform can be performed if the Interrogate Modulator (IM) (East or West) associated with the platform has been disabled or has a full queue. If the IM is not available, the owner will be so notified upon issuing this command.

2. DAPS operators are notified at thirty second intervals should the IM interface experience problems.

3. DCP owners must receive a response from their DCP to verify that the command was issued properly.

3.5.5. **DELETE MAIL** Command

SYNTAX:

**DELETE MAIL** date_time..
ALL

DESCRIPTION:
The DELETE MAIL command provides a means for the user to delete mail that has already been read. The date_time option allows the user to delete a **specific** piece of mail. The ALL option deletes all of the user's mail.

NOTE: The DAPS system automatically deletes all mail that is greater than N days old. This parameter is preset by the DAPS operator. Mail is displayed in chronological order.

ARGUMENTS:

| | | |
|---|---|---|
| MAIL | - | keyword indicating the deletion of mail. |
| date/time | - | specifies the date and time of creation of a specific piece of mail. This date/time is displayed with the mail using the DISPLAY MAIL command. |
| ALL | - | keyword indicating the deletion of all mail currently received by the user. |

EXAMPLES:

```
! Deletes the two pieces of mail with the dates/times specified.
> DELETE MAIL 206/10:52:01 208/16:31:05
 DELETE COMPLETE
>

! Deletes all of the user's mail.
> DE MAIL ALL
DELETE COMPLETE
>
```

COMMENTS:

1. Mail is displayed in chronological order.
2. Mail is automatically erased by the DAPS after the operator's pre-assigned period. this is presently set to seven (7) days.

### 3.5.6. **DELETE NETWORK_LIST** Command

SYNTAX:

**DELETE NETWORK_LIST** list_id platform_id..
ALL

DESCRIPTION:

The DELETE command provides a means for the user to delete one or more platforms from one of the user's network lists.

ARGUMENTS:

| | | |
|---|---|---|
| NETWORK_LIST | - | (short form: UNL) keyword indicating the deletion of a platform or platforms from a network list. |
| list_id | - | indicates the list that the platform(s) are to be deleted from. Enter list_id number from 1 to 5. |
| platform_id | - | refers to a valid DCP address. Enter ABCD1234. |
| ALL | - | keyword indicating the deletion of all platforms from the specified network list |

EXAMPLES:

```
! Delete platforms ABCD0123 and ABCD4321 from network list 2
> DELETE NETWORK_LIST 2 ABCD0123 ABCD4321


! Delete all entries from network list 5
> DE UNL 5 ALL
```

3.5.7. **DISPLAY BULLETIN** Command

SYNTAX:

**DISPLAY BULLETIN** [since] [until]

DESCRIPTION:

This option of the DISPLAY command generates a display of one line DAPS bulletins stored via the system. Bulletins may be selected by time range using optional "since" and "until" arguments.

ARGUMENTS:

BULLETIN- keyword indicating display name.

since - optional time field indicating the beginning of a time range in which to search for bulletins. Defaults to time of oldest bulletin. See Command Arguments for more information on date/time arguments.

until - optional time field indicating the end of a time range in which to search for bulletins. Defaults to current time. See Command Arguments for more information on date/time arguments.

EXAMPLES:

> DISPLAY BULLETIN ! Displays all bulletins

> DI BULLETIN 299/ ! Displays all bulletins received between 00:00:00 of day 299 and current time

> DI BULLETIN , 300/08 ! Displays bulletins starting with the oldest bulletin up to 08:00:00 of day 300

COMMENTS:

1. Should a new bulletin be issued while the user is signed onto the DAPS system, the user will be notified by the informational prompt: *** A NEW BULLETIN HAS BEEN POSTED *** following a command input.

2. Bulletins are displayed in chronological order.

3. The A201 or B201 coding at the end of the Bulletin's 80 character line identifies which DAPS computer system the Bulletin was issued from.

3.5.8 **DISPLAY DAPS_NEWS** Command

SYNTAX:

DISPLAY DAPS_NEWS

DESCRIPTION:

This option of the DISPLAY command display's modifications or enhancements made to the DAPS system.

ARGUMENTS:

None

EXAMPLES:

> DISPLAY DAPS_NEWS

>TYPE DAPS_NEWS

NOTE: A short form of DAPS_NEWS is received upon DAPS signon.

---

Last message change 22-Nov-89 15:41:24

DAPS SYSTEM B
Information on enhancements/modifications for DAPS dial-in users is available on the DAPS_NEWS display.
DAPS_NEWS last updated 11/22/89.

---

Included with this message is the DAPS computer system identifier, DAPS SYSTEM A or DAPS SYSTEM B and the DAPS_NEWS last updated date. Should the DAPS_NEWS update time be changed users may wish to reveiw this information.

### 3.5.9. **DISPLAY MAIL** Command

SYNTAX:

**DISPLAY MAIL** [since] [until]

DESCRIPTION:

This option of the DISPLAY command display's the user's mail. Mail may be selected by time range using the optional "since" and "until" arguments.

ARGUMENTS:

MAIL- keyword indicating display name.

since- optional time field indicating the beginning of a time range in which to search for mail. Defaults to time of oldest piece of mail. See Command Arguments for more information on date/time arguments.

until- optional time field indicating the end of a time range in which to search for mail. Defaults to current time. See Command Arguments for more information on date/time arguments.

EXAMPLES:

```
> DISPLAY MAIL          ! Displays all of user's mail

> DI MAIL 299/          ! Displays all of user's mail received  between 00:00:00 of day 299 and
                        ! current time

> DI MAIL , 300/08      ! Displays mail starting with the oldest up to 08:00:00 of DAY 300
```

3.5.10. **DISPLAY MESSAGE_FILE** Command

SYNTAX:

**DISPLAY MESSAGE_FILE** PLATFORM_ID platform_id [since] [until] [types]
LIST_ID list_id [since] [until] [types]
LIST_CHANNEL list_id channel_id [since] [until] [types]

DESCRIPTION:

This option of the DISPLAY command generates a display of DCP messages received using the selection criteria supplied.

The PLATFORM_ID option displays all messages received from the specified platform.

The LIST_ID option selects all messages received from platforms that are included on the specified network list.

The LIST_CHANNEL option selects all messages received from DCPs that are included on the specified network list and have been received on the specified channel.

Additional optional selection criteria in the form of time range and type selection may be applied to the options listed above.

ARGUMENTS:

MESSAGE_FILE - (short form: MSG) keyword indicating display name.

PLATFORM_ID - keyword indicating that message selection is to be by the platform address which follows this keyword.

LIST_ID - keyword indicating that message selection is to be by platforms contained in the user's network list indicated by the list_id which follows this keyword. Enter a number 1 to 5.

LIST_CHANNEL - keyword indicating that message selection is to be by platforms contained in the network list specified by list_id but restricted to the channel specified by channel_id.

platform_id - specifies a particular DCP address. Enter ABCD1234.

list_id - specifies a network list. Enter a number 1 to 5.

channel_id - specifies a particular channel, enter number and GOES S/C, E or W (ex. 21E or 84W).

since - optional time argument specifying the start time of a time range in which to search for messages. Defaults to time of earliest message received. See Command Arguments for more information on date/time arguments.

until - optional time argument specifying the end time of a time range in which to search for messages. Defaults to time of most recent message received. See Command Arguments for more information on date/time arguments.

types - optional character(s) indicating specific type(s) of messages to be selected. Valid types are:

G - Good message
W- Message received on wrong channel
D - Message received on multiple channels
A - Message with address errors (correctable)
T - Message received late/early (time error)
U - Unexpected message
M - Missing message
N - Entry for platform in PDT not complete
? - Message with parity errors (use "?" if used alone to distinguish from request for help)

Multiple letters may be concatenated to specify the selection of multiple types. For example, 'GUM' will select all good, unexpected, and missing messages, respectively. Defaults to all types.

EXAMPLES:

1. ! Display all types of messages received from DCP ABCD0123 that are currently in the GMS ! (the last 3 days)

> DISPLAY MESSAGE_FILE PLATFORM_ID ABCD0123

2. ! Display all types of messages received from DCPs included on network list 1 that have been ! received after 00:00:00 of DAY 260 up to current time

   > DI MSG LIST_ID 1 260/

3. ! MSG Data from network list 3. Received on channel 21E (note commas indicating default ! since and until times), and display only good messages.

   > DI MSG LIST_CHANNEL 3 21E , , G

4. ! MSG Data from network list 2. Received on channel 21E between 08:00:00 and 12:40:00 ! of the current day, display only good messages (G) and messages with parity errors (?).

   > DI MSG_FILE LIST_CHANNEL 2 21E 8 12:40 G?

COMMENTS:

1. DCP Messages are displayed in reverse chronological order, i.e., the most recent messages appear first. In addition, if selection is by network list, all messages are displayed for the first platform on the network list followed by all messages for the second platform on the network list and so on. Platforms are maintained as if they were in alphabetical order on the network lists.

2. When specifying 'since' and 'until' arguments, be sure to specify a time range wide enough to include the full transmission time of a message (start of transmission to end of transmission) in order to ensure the message is selected.

3. Selections involving large network lists may take a noticeable amount of time to process.

### 3.5.11. **DISPLAY NETWORK_LIST** Command

SYNTAX:

DISPLAY NETWORK_LIST list_id

DESCRIPTION:

This option of the DISPLAY command generates a display of platform entries from the specified User Network List (UNL).

ARGUMENTS:

NETWORK_LIST - (short form: UNL) keyword indicating the display name.

list_id - specifies which network list to display. Enter a number from 1 to 5.

EXAMPLES:

> DISPLAY NETWORK_LIST 1 ! Displays user network list #1

> DI UNL 3 ! Displays user network list #3

COMMENT:

Network list entries are displayed in alphabetical order.

### 3.5.12. **DISPLAY PLATFORM_CHANGES** Command

SYNTAX:

DISPLAY PLATFORM_CHANGES [since] [until]

DESCRIPTION:
This option of the DISPLAY command generates a display of DAPS log entries indicating modifications to the Platform Description Table (PDT). The log entries indicate platforms which have been added, deleted or modified. The log is sized to accommodate seven days of entries.

ARGUMENTS:

PLATFORM_CHANGES - keyword indicating the display name.

since - optional time argument specifying the start time of a time range in which to search for log entries. Defaults to time of earliest log entry. See Command Arguments for more information on date/time arguments.

until - optional time argument specifying the end time of a time range in which to search for log entries. Defaults to time of most recent log entry. See Command Arguments for more information on date/time arguments.

EXAMPLES:

1. ! Display all log entries indicating changes to the Platform Description Table
   > DISPLAY PLATFORM_CHANGES

2. ! Display all PDT changes between DAY 180 and DAY 185
   > DI PLATFORM_CHANGES 180/ 185/

COMMENT:
Platform changes are displayed by time in chronological order. After the time field a one character identifier will have either a U for a user interactive update, a B for a user or manager batch update, or an M for a manager DCP add or update.

### 3.5.13. **DISPLAY PLATFORM_PARMS** Command

SYNTAX:

DISPLAY PLATFORM_PARMS platform_id

DESCRIPTION:

This option of the DISPLAY command generates a display of an entry in the Platform Description Table for the specified platform. Refer to Appendix B for a full description of the parameters displayed.

ARGUMENTS:

PLATFORM_PARMS - (short form: PDT) keyword indicating the display name.

platform_id - DCP address of the platform to be displayed.
Enter a valid DCP address, ABCD1234.

EXAMPLES:

> DISPLAY PLATFORM_PARMS ABCD0123

> DI PDT ABCD0123

COMMENT:

By using the DISPLAY_PARMS or DI PDT command the user can look at the entire contents of the DCP's data record.

### 3.5.14 **DISPLAY PLATFORM_SUMMARY Command**

SYNTAX:

DISPLAY PLATFORM_SUMMMARY

DESCRIPTION:

This option of the DISPLAY command generates a summary report of all platforms owned by the user for the previous month.

ARGUMENTS:

PLATFORM_SUMMARY - keyword indicating the display name.

EXAMPLES:

> DISPLAY PLATFORM_SUMMARY

> TY PLATFORM_SUMMARY

COMMENTS:

1. Reports are generated in real-time but only for primary DCS Platform owners.

2. Reports available for users with less than 150 DCPs.

3. See Appendix C page C-11 for a description of the report and of the fields displayed.

### 3.5.15. **DISPLAY RADIO_DESCRIPTION** Command

SYNTAX:

DISPLAY RADIO_DESCRIPTION [manufacturer_id  model_id]

DESCRIPTION:

This option of the DISPLAY command generates a display of information on all currently defined DCP Radio Sets in the Radio Description Table.  The optional arguments, manufacturer_id and model_id, may be used to display specific technical information on a particular DCPRS.

ARGUMENTS:

DIO_DESCRIPTION -  (short form: RDT) keyword indicating the display name.

manufacturer_id  -  optional argument specifying the model_id manufacturer and model identifier of a specific DCPRS.  Must be entered as a pair.

EXAMPLES:

```
> DISPLAY RADIO_DESCRIPTION        ! Displays information on all DCPRS.

> DI RDT HANDAR 520A               ! Displays information on a particular DCPRS.

> DI RDT "DCPRS INC." RS0123       ! Displays information on a particular DCPRS (note
                                   ! use of  quotes due to embedded blank
                                   ! spaces in the manufacturer_id)
```

### 3.5.16. **DISPLAY USER_PARMS** Command

SYNTAX:

DISPLAY USER_PARMS

DESCRIPTION:

This option of the DISPLAY command generates a display of the user's entry in the User Description Table (UDT). Refer to Appendix B for a full description of the parameters displayed.

ARGUMENTS:

USER_PARMS - (short form: UDT) keyword indicating the display name.

EXAMPLES:

> DISPLAY USER_PARMS

> DI UDT

COMMENTS:

1. This command enables the DCS user to view their entire UDT record.

2. If too many DOWNLOAD requests are made in a single day, users should look at the setting of the REQ_NUMBER parameter in the UDT. At present users are provided up to 24 requests/day.

**NOTE: By using the DI UDT command the time of last Users signon and the times of last retrieval from each of the five network lists is provided.**

### 3.5.17. **DISPLAY USER_UTILIZATION** Command

SYNTAX:

DISPLAY USER_UTILIZATION

DESCRIPTION:

This option of the DISPLAY command generates a summary report of channel usage by platforms owned by the user for the previous month.

ARGUMENTS:

USER_UTILIZATION - keyword indicating the display name.

EXAMPLES:

> DISPLAY USER_UTILIZATION

> TY USER_UTILIZATION

COMMENTS:

See Appendix C page C-13 for a description of the report's format and for the fields displayed.

3.5.18. **DOWNLOAD MESSAGE_FILE** Command

SYNTAX:

DOWNLOAD MESSAGE_FILE PLATFORM_ID platform_id [since] [until] [types]
LIST_ID list_id [since] [until] [types]
LIST_CHANNEL list_id channel_id [since] [until] [types]

DESCRIPTION:

This option of the DOWNLOAD command transfers DCP messages using the selection criteria supplied. The PLATFORM_ID option transfers all messages received from the specified platform.

The LIST_ID option selects all messages received from platforms that are included on the specified network list.

The LIST_CHANNEL option selects all messages received from DCPs that are included on the specified user network list and have been received on the specified channel.

Additional optional selection criteria in the form of time range and type selection may be applied to the options listed above.

Messages are downloaded in the format that they are received by the DAPS system. The DAPS system inserts a header at the beginning of each message. See Appendix D for a description of the format of a downloaded message.

ARGUMENTS:

MESSAGE_FILE - (short form: MSG) keyword indicating file name.

PLATFORM_ID - keyword indicating that message selection is to be by the platform address which follows this keyword.

LIST_ID - keyword indicating that message selection is to be by platforms contained in the user's network list indicated by the list_id which follows this keyword.

**NOTE: When using the LIST_ID or LIST_CHANNEL option for downloading messages, the default start time for the time range of the message search is set to the end time used for the last download request using the LIST_ID or LIST_CHANNEL option**

**for the list specified. This mechanism provides a means of downloading only messages that have been received since the last download request for that particular UNL.**

**The last dissemination time for each network list can be observed on the user's UDT entry display via the DI UDT Command (see DISPLAY USER_PARMS).**

LIST_CHANNEL - keyword indicating that message selection is to be by platforms contained in the user's network list specified by list_id but restricted to the channel specified by channel_id. Enter list number, a space and then the S/C channel as shown below.

platform_id - specifies a particular DCP. Enter address, ABCD0123.

list_id - specifies a specific network list. Enter a number from 1 to 5.

channel_id - specifies a particular channel, XX, and GOES S/C, E or W (ex. 21E or 84W).

since - optional time argument specifying the start time of a time range in which to search for messages. Defaults to time of earliest message received except in the case of the LIST_ID, LIST_CHANNEL options noted above. See Command Arguments for more information on date/time arguments.

until - optional time argument specifying the end time of a time range in which to search for messages. Defaults to time of most recent message received. See Command Arguments for more information on date/time arguments.

types - optional character(s) indicating specific type(s) of messages to be selected. Valid types are:

- G - Good message
- W - Message received on wrong channel
- D - Message received on multiple channels
- A - Message with address errors (correctable)
- T - Message received late/early (time error)
- U - Unexpected message
- M - Missing message
- N - Entry for platform in PDT not complete
- ? - Message with parity errors (use "?" if used alone to distinguish from request for help)

NOTE: **Multiple letters may be concatenated to specify the selection of multiple types. For example, 'GUM' will select all good, unexpected and missing messages, respectively. Defaults to all types.**

EXAMPLES:

1. ! Download all types of messages received from DCP ABCD0123 that are currently in the GMS
   > DOWNLOAD MESSAGE_FILE PLATFORM_ID ABCD0123

2. ! Download all types of messages received from DCPs included on network list 2 that have been
   ! received since the last download request using network list 2 (this time is displayable in the
   ! UDT entry) (see page C-8).
   > DO MSG LIST_ID 2

3. ! Download all types of messages received from DCPs included on network list 1 that have been
   ! received after 00:00:00 of DAY 260 up to the current time
   > DO MSG LIST_ID 1 260/

4. ! Download only good messages that have been received from DCPS included on network list 3
   ! and have been received on channel 21E that are currently in the GMS
   > DO MSG LIST_CHANNEL 3 21E ,, G

5. ! Download only good messages and unexpected messages that have been received from
   ! platforms included on network list 2 and were received on channel 21E between 08:00:00
   ! and12:10:00 of the current day
   > DO MSG LIST_CHANNEL 2 21E 8 12:10 GU

6. Sample Response
   > DOWN MSG LIST_ID 4 ! Download all messages for list 4
   >> BEGIN DOWNLOAD? (Y/N)
   >> Y
   CE1200B889188094218G46-3NN052WFF00049H14L
   2276
   2278
   2280
   2280
   133

CE1200B889188054218G51-2NN052WFF00049H14L

2282
2281
2280
2280
132

CE1200B889188014218G49-2NN052WFF00049H14L

2281
2279
2277
2274
132

DOWNLOAD COMPLETE; NUMBER OF MESSAGES TRANSFERRED: 3

COMMENTS:

1. The DOWNLOAD command is intended to be the primary DCP message transfer mechanism in DAPS for DCS telephone users.

2. Messages are downloaded in reverse chronological order, i.e., the most recent messages appear first. In addition, if selection is by network list, all messages are downloaded for the first platform on the network list followed by all messages for the second platform on the network list and so on. Platforms are maintained in alphabetical order on the network lists.

3. When specifying 'since' and 'until' arguments, be sure to specify a time range wide enough to include the full transmission time of a message (start of transmission to end of transmission) in order to ensure the message is selected.

4. The number of messages downloaded per request is limited (currently 2000 messages per request).

5. Users are limited to 24 DOWNLOAD requests per day. Should you exceed this quota, you may request the DAPS operation to reset REQ_NUMBER in your UDT entry.

3.5.19. **DOWNLOAD NETWORK_LIST** Command

SYNTAX:

DOWNLOAD NETWORK_LIST list_id

DESCRIPTION:

This option of the DOWNLOAD command transfers all of the platform entries in the network list identified by the list_id. Network list entries are downloaded in a format that may be edited and used for additions to or deletions from network lists through use of the SUBMIT command.

ARGUMENTS:

NETWORK_LIST - (short form: UNL) keyword indicating the table name.

list_id - specifies which of the network lists to transfer. Enter value from 1 to 5.

EXAMPLES:

```
> DOWNLOAD NETWORK_LIST 1    ! Downloads network list #1
>> BEGIN DOWNLOAD? (Y/N)
>>Y
CE12A038 &
CE310EA8 &
CE0A128F &
12A031EC &
DOWNLOAD COMPLETE
```

```
> DO UNL 3                   ! Downloads network list #3
>> BEGIN DOWNLOAD? (Y/N)
>>Y
        140103F6 &
        1401251A &
        47435374 &
```

474366EE &
47437598 &
4743851C &
4743966A &
4743A3F0 &
4743B086 &
4743C616 &
DOWNLOAD COMPLETE

3.5.20. **DOWNLOAD PLATFORM** Command

SYNTAX:

DOWNLOAD PLATFORM platform_id

DESCRIPTION:

This option of the DOWNLOAD command transfers all user modifiable parameters associated with an entry in the Platform Description Table for the platform specified. Parameters are downloaded in a format such that they may be edited on the DCP owner's local PC or computer and resubmitted via the SUBMIT command.

ARGUMENTS:

PLATFORM - (short form: PDT) keyword indicating the table name.

platform_id - DCP address of the platform selected. Enter address, ABCD0123.

EXAMPLES:

```
> DOWN PDT CE1200B8
BEGIN DOWNLOAD? (Y/N)
>> Y
UPDATE PDT CE1200B8                &
MAX_RETRIES =   0                   &
DATA_FORMAT = "A"                  &
PRIME_PREAMBLE = "L"               &
SECND_PREAMBLE = "S"               &
*LOC_CODE = "ND "                  &
LOC_REGION = "A"                   &
LOC_NAME = "MAN2                  "  &
LATITUDE =   464432                &
LONGITUDE = -1004954                &
MIN_ELEVATION =  5                  &
CATEGORY = "L"                     &
SHEF_CODE1 =  "HG"                 &
SHEF_CODE2 =  "  "                 &
SHEF_CODE3 =  "  "                 &
```

```
SHEF_CODE4 =  "  "                    &
SHEF_CODE5 =  "  "                    &
SHEF_CODE6 =  "  "                    &
SHEF_CODE7 =  "  "                    &
SHEF_CODE8 =  "  "                    &
SHEF_CODE9 =  "  "                    &
SHEF_CODE10 = "  "                    &
SHEF_CODE11 = "  "                    &
SHEF_CODE12 = "  "                    &
SHEF_CODE13 = "  "                    &
SHEF_CODE14 = "  "                    &
SHEF_CODE15 = "  "                    &
MANUFACTR_ID = "SUTRON       "      &
MODEL_NO = "8004D          "        &
SEASON_ID = "N"                      &
DATE_DEPLOY = 19890101               &
DATE_REDEPLOY = 00000000             &
PMAINT_NAME = "BRIAN WILSON "  &
PMAINT_PHONE = "                "    &
PMAINT_FTS = "8644600"               &
PMAINT_FAX = "                "      &
PMAINT_TELEX = "                "    &
END

DOWNLOAD COMPLETE
```

**NOTE:** ***LOC_CODE parameter requires a three character entry. For US Users a blank space must precede or be placed after the two character State abbreviation (e.g. " MD", "VA ", etc.). Therefore quotation marks " " must surround this PDT entry.**

### 3.5.21. **DOWNLOAD USER** Command

SYNTAX:

DOWNLOAD USER

DESCRIPTION:

This option of the DOWNLOAD command transfers all user modifiable parameters of the user's entry in the User Description Table. Parameters are downloaded in a format that may be edited and resubmitted through the SUBMIT command.

ARGUMENTS:

USER - (short form: UDT) keyword indicating the table name.

EXAMPLES:

```
> DOWNLOAD USER ! LONG FORM
    OR
> DO UDT ! SHORT FORM
BEGIN DOWNLOAD? (Y/N)
>> Y
UPDATE UDT                                              &
OPR_NAME_LAST = "SMITH              "                   &
OPR_NAME_FIRST = "MR. JOHN            "          &
OPR_ADDR_LINE1 = "                      "               &
OPR_ADDR_LINE2 = "100 SOUTH 10TH STREET          "      &
OPR_CITY = "OMAHA                  "                    &
OPR_STATE_PROV = "NE                        "           &
OPR_ZIP_CODE = "68102-4978 "                            &
OPR_PHONE = "(402)221-1234      "                  &
OPR_FTS = "8644808"                                     &
OPR_TELEX = "                "                  &
OPR_FAX = "                  "                          &
END
DOWNLOAD COMPLETE
```

### 3.5.22. **FORWARD** Command

SYNTAX:

FORWARD

DESCRIPTION:

The FORWARD commands is used to display the next page (20 lines) of a DAPS multi-page display.

ARGUMENTS:

None

EXAMPLES:

> FORWARD

> F

### 3.5.23. **HELP** Command

SYNTAX:

HELP [command]

DESCRIPTION:

The HELP command provides full screen displays on specific or all DAPS commands.

ARGUMENTS:

command - optional argument specifying a particular command to receive help for. Defaults to general help for all commands.

EXAMPLES:

```
> HELP          ! Generates a full screen display with help on  all DAPS commands

> H DOWNLOAD    ! Generates a full screen display with specific help on using the DOWNLOAD
                  command

> H DOWNLOAD MESSAGE_FILE  ! Generates a full screen display with specific help on using
                                ! the DOWNLOAD MESSAGE_FILE command
```

3.5.24. **INTERROGATE** Command

SYNTAX:

INTERROGATE platform_id [retry]

DESCRIPTION:

This command provides the means for the owner of a DCP with interrogation capabilities to request an interrogation of that DCP.

ARGUMENTS:

platform_id - specifies the DCP to be interrogated.

retry - optional retry count to be used if DCP does not reply. Defaults to value in MAX_RETRIES parameter in PDT entry for platform. Enter number.

EXAMPLES:

```
> INTERROGATE ABCD0123   ! Request an interrogation of  platform ABCD0123. Use default
                         ! retry count

> I ABCD4321 3           ! Request an interrogation of platform ABCD4321.  Retry 3
                         ! times if platform does not reply
```

COMMENTS:

1. The retry option is used by DAPS to re-interrogate the platform, if:

    a. If no reply is received within the interrogation window. This will also result in the generation of a "MISSING INTERROGATION MESSAGE" (type "M") error message at the next minute boundary.

    b. If the DCP address of the reply is garbled. This will also result in the generation "BAD DCP ADDRESS" (type "B") error message.

    c. If a parity "?" error was detected in the received DCP message data or any other error

associated with the message (other than a "PDT RECORD IS NOT COMPLETE" (type "N") error). The appropriate error message will be generated and the DCP will be re-interrogated.

2. No commanding of a platform can be performed if the Interrogate Modulator (East or West) associated with the platform has been disabled or has a full queue. After issuing this command the owner will be informed by the DAPS should this condition exist.

### 3.5.25. PASSWORD Command

SYNTAX:

PASSWORD new_password

DESCRIPTION:

This command provides the means for the dialin user to change their existing DAPS Password. The change will be made to both systems (DAPSA and DAPSB).

**NOTE:** **If the network betwwen the computer systems is not available at the time of the request, the command will be rejected. Also, this Command supersedes the process of entering the new Password at user signon.**

ARGUMENTS:

new_password - this field identifies the new password for the User. New passwords must be from six (6) to fifteen (15) characters in length, and can be any combination of the following characters: upper or lowercase letters, numbers 0 through 9, and all printable characters except the up arrow.

EXAMPLES:

```
> PASSWORD ABCD0123MNOP        ! Change password to "ABCD1234MNOP"

> PASS WXYZAB                  ! Change password to "WXYZAB"

> PASS TOP                     ! Request rejected.  Password too short!
```

3.5.26. **RETRANSMIT** Command

SYNTAX:

RETRANSMIT PLATFORM_ID platform_id [since] [until]
LIST_ID list_id [since] [until]
LIST_CHANNEL list_id channel_id [since] [until]

DESCRIPTION:

The RETRANSMIT command provides a means for users who receive messages via DOMSAT to request retransmission of messages. Various selection arguments are provided.

The PLATFORM_ID option requests retransmission of all messages received from the specified platform.

The LIST_ID option selects all messages received from platforms that are included on the specified user's network list.

The LIST_CHANNEL option selects all messages received from DCPs that are included in the specified user network list and have been received on the specified channel.

Additional optional selection criteria in the form of time range selection may be applied to the options listed above.

ARGUMENTS:

| | | |
|---|---|---|
| PLATFORM_ID | - | keyword indicating that message selection is to be by the platform_id which follows this keyword. |
| LIST_ID | - | keyword indicating that message selection is to be by platforms contained in the user's network list indicated by the list_id which follows this keyword. |
| LIST_CHANNEL | - | keyword indicating that message selection is to be by platforms contained in the user's network list specified by list_id but restricted to the channel specified by channel_id. |
| platform_id | - | specifies a particular DCP. Enter address, ABCD0123. |
| list_id | - | specifies a specific network list. Enter a number from 1 to 5. |

channel_id - specifies a particular channel, XX, and GOES S/C, E or W (ex. 21E or 84W).

since - optional time argument specifying the start time of a time range in which to search for messages. Defaults to time of earliest message received. See Command Arguments for more information on date/time arguments.

until - optional time argument specifying the end time of a time range in which to search for messages. Defaults to time of most recent message received. See Command Arguments for more information on date/time arguments.

EXAMPLES:

1. ! Retransmit all messages received from DCP ABCD0123

   > RETRANSMIT PLATFORM_ID ABCD0123

2. ! Retransmit all messages received from platforms included on network list 1 that have been ! received after 00:00:00 of day 260

   > RE LIST_ID 1 260/

3. ! Retransmit all messages that have been received from DCPs included on network_list 3 ! and have been received on channel 21E.

   > RE LIST_CHANNEL 3 21E

4. ! Retransmit all messages included on network list 2 that were received on channel 21E
   ! between 08:00:00 and 08:10:00 of the current day

   > RE LIST_CHANNEL 2 21E 08:00 08:10

COMMENTS:

1. This command is restricted to users whose primary means of message dissemination is via DOMSAT.

2. Messages are retransmitted in reverse chronological order, i.e., the most recent messages are retransmitted first. In addition, if selection is by network list, all messages are retransmitted for the

first platform on the network list followed by all messages for the second platform on the network list and so on. Platforms are maintained in alphabetical order on the network lists.

3. When specifying 'since' and 'until' arguments, be sure to specify a time range wide enough to include the full transmission time of a message (start of transmission to end of transmission) in order to ensure the message is selected.

3.5.27. **SEND MAIL** Command

SYNTAX:

SEND MAIL OPR
MGR

DESCRIPTION:
The SEND MAIL command provides a means for the user to communicate with the operator or manager via electronic mail. After the command is entered, the input prompt ('>>') appears and all input from the keyboard is taken as input to the message. Input is terminated by entering a single '>' as the first character of the input line.

**NOTE: A piece of mail is restricted to 100 lines of ASCII text in length.**

ARGUMENTS:
MAIL - keyword indicating mail
OPR - keyword indicating mail is to be sent to operator.
MGR - keyword indicating mail is to be sent to manager.

EXAMPLES:

```
> SEND MAIL OPR
>>PLEASE CHECK STATUS OF RETRANSMISSION REQUESTS FOR USER
>>USR003 VIA DOMSAT. THANKS.
>>>
SEND COMPLETE
```

COMMENTS;
1. Users may upload an ASCII or DOS text file of up to 100 lines after the ">>" prompt appears.

2. To cancel the SEND MAIL command after the ">>" prompt appears users should simply depress the ESC key followed by an ENTER.

### 3.5.28. **SUBMIT** Command

SYNTAX:

SUBMIT

DESCRIPTION:

The SUBMIT command is used to submit commands for batch execution. This may be helpful to the user with file transfer capabilities who has a large number of DAPS DBMS table updates to make.

Batch execution of commands is restricted to a subset of user commands. These commands are:

UPDATE PLATFORM
UPDATE USER
ADD NETWORK_LIST
DELETE NETWORK_LIST
BYE

After the command is entered, the input prompt ('>>') appears and all input from the keyboard or file transferred is taken as input to the batch file. Input lines are restricted to 80 characters in length and must be terminated with a NEW LINE (<NL>) character or CARRIAGE RETURN (<CR>) character. When a UDT or a PDT UPDATE is desired an END statement must be placed after the last parameter of the file type to be modified. To terminate the number of SUBMIT commands issued per batch, a BYE statement must be used. The SUBMIT batch input process is terminated by entering a single '>' as the first character of the last line input.

The status of execution of each command in the batch file is recorded in the user's mail for review. Commands with errors are terminated with an error message and command processing continues with the next command in the batch file.

ARGUMENTS: None

EXAMPLES:
SUBMIT or batch commands can be entered interactively or concatenated from a user created ASCII or DOS text file.

Individual SUBMIT Example:

```
>SUBMIT
>>UPDATE PDT 536004E4                    &          ! First DAPS Command
>>LOC_NAME = "THE POINT OF ROCKS IN MD"   &   ! PDT Field entry
>>PMAINT_NAME = " CALL MIKE'S SERVICING"  & ! PDT Field entry
>>PMAINT_PHONE = " (301)7638063"          &          ! PDT Field entry
>>PMAINT_FTS = "      "                   &          ! PDT Field entry
>>END                                               ! End PDT Update
>>BYE                                               ! END of Batch file
>>>                                                 ! SUBMIT Complete
```

Concatenated SUBMIT Example:

```
>SU
>>UP PDT 536004E4                         &          ! First DAPS Command
>>LOC_NAME = "THE POINT OF ROCKS IN MD"   & ! PDT Field entry
>>PMAINT_NAME = " CALL MIKE'S SERVICING"  & ! PDT Field entry
>>PMAINT_PHONE = " (301)7638063"          &          ! PDT Field entry
>>PMAINT_FTS = "      "                   &          ! PDT Field entry
>>END                                               ! End PDT Update
>>UP PDT 53601792                         &          ! Second DAPS Command
>>LOC_NAME = "POINT OF ROCKS RESEVOIR"    & ! PDT Field entry
>>PMAINT_NAME = " CALL CARL'S  SERVICING" & ! PDT Field entry
>>PMAINT_PHONE = " (301)7638326"          &          ! PDT Field entry
>>PMAINT_FTS = "      "                   &          ! PDT Field entry
>>END                                               ! End PDT Update
>>ADD UNL 2                               &          ! Third DAPS Command
>>CE1200B8   CE1213CE   CE122654          &          ! Three DCPAddresses
>>CE12C5A6   CE12D6D0   CE12E34A          &          ! Three DCP addresses
>>CE7474D4   CE7803D8   CE780D0A                     ! Three DCP addresses
>>ADD UNL 3                               &          ! Fourth DAPS Command
>>CE1200B8   CE1213CE   CE122654          &          ! Three DCP Addresses
>>CE12C5A6   CE12D6D0   CE12E34A                     ! Three DCP Addresses
>>BYE                                               ! END of Batch file
>>>                                                 ! SUBMIT Complete
```

COMMENTS:

1. Refer to Appendix E for information on configuring specific communications packages for ASCII transfer.

2. Results of batch execution are returned via mail. These batch results are indicated by a source of BATCH. Because each piece of mail is restricted to 100 lines maximum, the results of a large batch job may require several pieces of mail.

3. SUBMIT Commands that execute successfully generate a one line of text indicating a successful Batch operation.

   Example: PLATFORM 150013D8 DESCRIPTION UPDATED

4. SUBMIT Commands in error result in a four line error message. The first line indicates the line number of command in error. The second line is an echo of the line in error. The third line contains a pointer to the field in error. The fourth line is an error message indicating the error condition. Example:

   *** Command Error *** Line = 24
   SECND_PREAMBLE = X &

   UPDATE PDT 3241AC31 NOT COMPLETE; INVALID SECND_PREAMBLE

5. Up to 100 commands (UPDATE, ADD, DELETE) may be submitted per batch submission.

### 3.5.29. **TIME** Command

SYNTAX:

TIME

DESCRIPTION:

This command is used to display the current day of year and GMT in the format:

DDD/HH:M:SS

ARGUMENTS:

None

EXAMPLES:

```
> TIME
207/14:23:02
>

>TI
207/14:23:15
>
```

### 3.5.30. **TYPE** Command

SYNTAX:

See specific DISPLAY command descriptions.

DESCRIPTION:

This command may be used interchangeably with any DISPLAY command to initiate a DAPS display. A display requested by the DISPLAY command will have its first 22 lines output to the terminal. The remainder of the display, if any, may be 'paged' through by use of the FORWARD and BACKWARD commands which also output 22 lines at a time. The TYPE command outputs the total display without 'page breaks' requiring the use of the FORWARD and BACKWARD commands. Through use of this command, the user may 'download' any of the DAPS displays.

ARGUMENTS:

See specific DISPLAY command descriptions.

EXAMPLES:

See specific DISPLAY command descriptions.

COMMENTS:

1. Output of a display may be controlled by use of the CTRL-S, CTRL-Q key sequences which will respectively disable and re-enable output of the display.

2. See page C-8 for example.

### 3.5.31. **UPDATE PLATFORM** Command

SYNTAX:

UPDATE PLATFORM platform_id parameter=value.. END

DESCRIPTION:

The UPDATE PLATFORM command provides a means for a user to modify or update the data fields of selected parameters in the Platform Description Table (PDT) for a DCP owned by the user. The DCP owner may only UPDATE the parameters identified Appendix B, on pages B-2 through B-4.

ARGUMENTS:

PLATFORM - (short form: PDT) keyword indicating the Platform Description Table for update.

platform_id - specifies the DCP address in the PDT selected for update. Enter address, ABCD0123.

parameter=value - a pair of arguments composed of a parameter keyword and the value that is to be assigned to that parameter. Refer to Appendix B for parameters in the PDT.

END - keyword indicating the end of the update list.

EXAMPLES:

1. ! Update the latitude and longitude for DCP ABCD0123

```
> UP PDT ABCD0123 LATITUDE=344020 LONGITUDE=1332539 END
UPDATE COMPLETE
```

```
2. > UP PDT ABCD0123 &                              ! Update PDT entry
  >> PMAINT_NAME = "ANDREW JONES"        &         ! Note use of quotes
  >> PMAINT_PHONE = "(301) 321-4567"     &         ! because of embedded
  >> PMAINT_FTS = 7315246                &         ! blanks
  >> END                                            ! End of update
  UPDATE COMPLETE
```

COMMENTS:

1. Each parameter must be entered **precisely** as shown in the PDT table provided in Appendix B, pages B-2 through B-4.

2. Remember, should a parameter entry contain embedded blank spaces, quotation marks, " ", must surround the entry. See examples.

3.5.32. **UPDATE USER** Command

SYNTAX: UPDATE USER parameter=value.. END

DESCRIPTION:

The UPDATE USER command provides a means for a user to modify or update the data fields of selected parameters in their User Description Table (UDT) record. The DCP user may only UPDATE the parameters identified Appendix B, on page B-5.

ARGUMENTS:

| | | |
|---|---|---|
| USER | - | (short form: UDT) keyword indicating the User Description Table for update. |
| parameter=value | - | a pair of arguments composed of a parameter keyword and the value that is to be assigned to that parameter. Refer to Appendix B for information on parameters in the UDT. |
| END | - | keyword indicating the end of the update list. |

EXAMPLES:

```
1. >  UPDATE USER OPR_PHONE = "301 321-1234"      &      ! New phone
   >> OPR_FAX = 4321123 END                                ! New FAX
   UPDATE COMPLETE

2. >  UP UDT                                  &
   >> OPR_NAME_LAST = SMITH                  &      ! Update last name
   >> OPR_NAME_FIRST = "JOHN Q."             &      ! Update first name
   >> OPR_PHONE = "(321) 456_1234"           &      ! Update phone number
   >> END
   UPDATE COMPLETE
```

COMMENTS:

1. Each parameter must be entered precisely as shown in the UDT provided in Appendix B, page B-5.

2. Remember, should a parameter entry contain embedded blank spaces, quotation marks, " ", must surround the entry. See examples.

## APPENDIX A: GOES DCS DAMS QUALITY MEASUREMENTS

### A.1. INTRODUCTION

The primary function of the Data Acquisition and Monitoring Subsystem (DAMS) is to provide reliable recovery of DCP message data. The DAMS unit also provides four dynamic signal quality measurements and formats the DCP messages with the respective quality measurements into a multiplexed data output which is ingest into the DAPS.

A.1.1. DCP message data is received from either GOES East or GOES West at the Wallops CDA station via dedicated S-band antennas and receivers. These signals are routed through the Frequency Control Electronics (FCE) which removes any satellite induced frequency offset. The FCE's 5 MHz nominal signal output is passed to the DCS multicouplers for distribution to the DAMS chassis. To compensate for S/C frequency translation error a DCS pilot signal is transmitted to both satellites from the Wallops CDA Station. The transmit EIRP of the DCS pilot signal is maintained at exactly +47 dBm. Aside from the other the DCP carriers present in the S/C transponder, the pilot carrier signal appears as a 5.0 MHz continuous wave signal after passing through the FCE. By sending a known pilot carrier level, individual DCP carriers are then compared in amplitude against the pilot to determine the individual DCP EIRP's. The DAMS unit's demodulate data and perform the signal quality measurements described below. The DAMS units append this quality information on the end of the DCP message, and transfer this data to the DAPS computers.

## A.2. FORMAT

The DAMS units provide four signal quality measurements on each message received from a DCP. These include:

- o DCP Transmit EIRP
- o DCP Transmit Frequency Offset
- o DCP Modulation Index
- o Received Data Quality

A.2.1 The DAMS first quality measurement is transmit EIRP or received signal strength (implied EIRP, assuming that the pilot is a +47 dBm reference). Signal strength is output as two ASCII digits ranging between 32 and 57 (decimal). The nominal operating range is 44 to 49 dBm.

The DAPS has the ability to compensate for irregularities in the GOES DCS transponder's passband characteristics. This feature can either be enabled or disabled. If enabled there are two different signal strength calibrations that may be used - manual or automatic. In the manual mode the DAPS operator selects the bias or delta change to apply to a DCS channel based upon a known history of the S/C bandpass response. In the automatic mode the DAPS uses the last valid DCS test transmitter data to determine the delta to apply to the DCS channel. Because of the operating characteristics of the present operational GOES, the DAPS is currently configured for auto-calibrate on all active DCS channels.

Whenever the DAPS signal strength compensation software is enabled, all DCP message data received on the respective channel will be calibrated to either the operator or test transmitter determined values. If the DCP's input signal strength is valid the DAPS will apply the delta value to the DCP message data's signal strength measurement. If the DCP's input signal strength is invalid (out-of-range or DAMS parity error), the DCP message data's signal strength measurement will appear as "//".

A.2.2 The second DAMS quality measurement is Frequency Offset. It appears in the third and fourth ASCII character positions and is output as two characters. The first is an ASCII plus (+) or minus (-) sign, the second is an ASCII number zero (0) through nine (9) or the ASCII character "A". The plus/minus sign indicates that the platform is above/below (respectively) the channel center frequency, and the number (0-9) indicates the amount in increments of 50 Hz. The character "A" represents 500 Hz which is the worst case frequency error that the DAMS units can acquire. The nominal operating range for frequency offset is $\pm$250 Hz ($\pm$5).

A.2.3 The third DAMS quality measurement (located in the fifth character position) is Modulation Index (deviation). The modulation index measurement is expressed by one of the three characters:

- o N (Normal, $60^{o}$ $+9^{o}$)
- o L (Low, $<50^{o}$)
- o H (High, $>70^{o}$)

The nominal operating character for modulation index is N.

A.2.4. The fourth DAMS quality measurement (located in the sixth character position) is Data Quality. The data quality measurement is expressed by one of the three characters:

- o N (Normal, error rate better than $1 \times 10^{-6}$)
- o F (Fair, error rate between $1 \times 10^{-4}$ and $1 \times 10^{-6}$)
- o P (Poor, error rate worse than $1 \times 10^{-4}$)

The nominal operating character for data quality is N.

A.2.5. Each of the DAMS demodulators are provided with a "QM DISABLE" switch, which when depressed, causes the unit to output six slashes (//////) in place of the six Quality Measurement characters.

## A.3. TROUBLESHOOTING GUIDE

The largest single cause of incorrect DAMS Quality measurements is weak DCP batteries. This problem can not only cause low transmit power, but also reduced data quality (F or P) and increased frequency offset. If the other parameters are within tolerance, and only frequency is showing drift tendencies, it is possible that its frequency source, the TCXO, may need some alignment. Conversely, if the frequency parameter is within tolerance and the EIRP is reduced, it may be due to some blockage or pointing error in the transmission path, bad antenna connections, or a failure.

- o Incorrect frequency can be caused by a temperature sensitive VCXO in the DCP.

- o Incorrect modulation index can often be an improper adjustment at the factory. However, a change from N to H or L once deployed should be regarded as a degradation which would continue and degrade data.

- o Improper data quality can be due to low signal strength or extremely low modulation index. It can also be due to any number of instabilities in the transmitter. In some cases, interference from another platform transmitting on the same channel at the same time can cause poor data quality.

A.3.1 The preceding examples are not intended in any way to be an exhaustive list of DCP problems related to the DAMS quality measurement data. The GOES DCS has considerable margin for low signal strength. Good data can sometimes be obtained at very low values (35-36), however, this cannot be counted on for **all satellite and transponder loading conditions**.

A.3.2 In any case, records should be kept by the user to determine long term trends. Action to repair/replace a platform should not be initiated by one abnormal message, unless it is clear that a previously identified weak area has substantially deteriorated, and then prompt action should be taken to remedy the fault before any data are lost.

A.3.3 By using long term trend analysis, the user can keep a record of the health of each of his DCP's. However, there are other problems which can befall the whole data collection process which the DAMS Quality Measurements cannot directly detect. Some examples are:

1) Faulty sensors
2) Improper informational content
3) Battery charge status
4) Interference (both manmade and natural)
5) Burst collisions on random reporting channels

A.3.4 When used as a diagnostic tool, the DAMS Quality Measurements can provide the user with valuable information regarding the operational status of the DCP's. Prompt action to correct overpower and out of tolerance frequency conditions will prevent platforms from interfering with each other, and can maximize information throughout in the GOES DCS.

## A.4. ACCURACY AND CONSISTENCY OF READINGS

The accuracy of all four DAMS are checked daily by NESDIS to ensure reliability. However, for a number of reasons, absolute accuracy of the signal strength reading is plus or minus 2 dB. Normally for a given DCP, the measurements will be far more consistent (usually ±dB). However, should the satellite be replaced or at a higher than nominal inclination (>1.5°), a new DAMS unit be installed, or other conditions in the satellite's transponder change, the DAMS signal strength reading could suddenly jump up or down and stay there. For example, a perfectly normal DCP could read 44 (dB EIRP) on one channel (self-timed perhaps) and read 49 on another (perhaps a random reporting channel). It is for these reasons the DAPS bandpass calibration software was put inplace. For all conditions other than an actual DAMS equipment failure, the remaining DAMS quality measurements should remain accurate (frequency, modulation index, and data quality).

**Table A-1. DAMS QUALITY MEASUREMENTS**
**(Revised Nov 4, 1981)**

| PARAMETER | RANGE | INTERPRETATION |
|---|---|---|
| SIGNAL STRENGTH | 32 TO 57 | o SHOULD NEVER EXCEED 50<br>o NORMAL IS 44 TO 48<br>o LESS THAN 43 OR GREATER THAN 49 INDICATES A POSSIBLE MALFUNCTION OR IMPROPER INSTALLATION<br>o RELIABLE DATA CAN BE RECEIVED AS LOW AS 37 IF NO OTHER SIGNAL PROBLEMS EXIST |
| FREQUENCY ERROR | ±0 TO ±A | o 50 Hz INCREMENTS<br>o RELIABLE DATA SHOULD BE POSSIBLE BETWEEN -8 AND +8 (-449 TO +449 Hz)<br>o FREQUENCY DRIFT DUE TO TEMPERATURE (+200 Hz & AGING (+400 Hz/YR.) CAN CAUSE A PLATFORM TO DRIFT OUTSIDE THE ±500 Hz RANGE VERY QUICKLY<br>o ±250 Hz IS A SAFE RANGE FOR NORMAL OPERATIONS |
| MODULATION INDEX | N, H, L | o N IS NORMAL<br>o H (HIGH): MESSAGES MAY BE TRUNCATED OR LOST DUE TO LOSS OF DEMODULATOR LOCK. SIGNAL STRENGTH READINGS MAY INDICATE TOO LOW<br>o L (LOW): HIGH ERROR RATE, MISSING MESSAGES, SIGNAL STRENGTH READINGS MAY READ TOO HIGH |
| MODULATION QUALITY | N, F, P | o N IS NORMAL<br>o F INDICATES MALFUNCTION OR MIS-ALIGNMENT, ERROR RATE BETWEEN $10^{-4}$ AND $10^{-6}$<br>o P INDICATES MALFUNCTION OR |

MIS-ALIGNMENT, ERROR
RATE WORSE THAN $10^{-4}$

**NOTE: THESE MEASUREMENTS SHOULD BE TREATED STATISTICALLY.
DO NOT DO ANYTHING BASED ON ONE MEASUREMENT.**

## APPENDIX B: DAPS DBMS TABLES FOR USER ACCESS/MODIFICATION

### PLATFORM DESCRIPTION TABLE (PDT) PARAMETERS

| PARAMETER | DESCRIPTION | SOURCE |
|---|---|---|
| OWNER_ID | * Owner user ID (must be in UDT) | MGR |
| PRIME_TYPE | * Primary type:<br>S: Self-timed, I: Interrogate, R: Random, D: Dual | MGR |
| PRIME_CHAN | * Primary channel: 1 - 266 (must be in CDT) | MGR/OPR |
| PRIME_SCID | * Primary GOES spacecraft assigned :<br>E: East, W: West | MGR/OPR |
| SECND_ADDR | Secondary address or Null | MGR |
| SECND_TYPE | Secondary type:<br>R: Random, I: Interrogate, or Null<br>Note: valid PRIME/SECND types are S/I, S/R | MGR |
| SECND_CHAN | Secondary channel: 0 - 266 (must be in CDT if > 0) | MGR |
| SECND_SCID | Secondary GOES spacecraft assigned :<br>E: East, W: West, or Null | MGR |
| TRIGGER_MODE | Trigger mode: S: Special, T:test, or Null<br>Note: if not Null then:<br>(a) PRIME_TYPE must be R<br>(b) SECND_ADDR (trigger id) required FIRST_XMT<br>Time of first transmission for S/D type platforms<br>Time of first interrogation for I type platforms in<br>HHMMSS format | MGR<br>MGR/OPR |
| XMT_PERIOD | Time period between transmissions (S/D)<br>Time period between interrogations (I) in HHMMSS<br>Format | MGR |
| XMT_WINDOW | Maximum transmission window size in MMSS (S/D) | MGR |
| XMT_RATE | * Data transmission rate in bps (100/300/1200) | MGR |
| MAX_RETRIES | Maximum number of interrogation retries (I) | OA/MGR |
| DATA_FORMAT | * DCPRS data format: A: ASCII, B: Binary | OA/MGR |
| PRIME_PREAMBLE | DCPRS preamble type: L: Long, S: Short | OA/MGR |
| SECND_PREAMBLE | DCPRS preamble type: L: Long, S: Short, or Null | OA/MGR |
| LOC_CODE | Three character location code (see Note 4) | OA/MGR |

| | | |
|---|---|---|
| LOC_REGION | Location category: A: United States, B: Canada, C: South America, O: Other | OA/MGR |
| LOC_NAME | Location name (31 characters) | OA/MGR |
| LATITUDE | Latitude in DDMMSS | OA/MGR |
| LONGITUDE | Longitude in DDMMSS | OA/MGR |
| MIN_ELEVATION | Minimum elevation angle of platform (in DD) | OA/MGR |
| CATEGORY | Platform category: F: Fixed-buoy, D: Drifting-buoy, A: Aircraft, S: Ship, B: Balloon, L: Land-based, O: Other | OA/MGR |

**PLATFORM DESCRIPTION TABLE (PDT) PARAMETERS** (CONT.)

| PARAMETER | DESCRIPTION | SOURCE |
|---|---|---|
| SHEF_CODE1 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE2 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE3 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE4 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE5 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE6 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE7 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE8 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE9 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE10 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE11 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE12 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE13 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE14 | Shef code (2 characters or Null) | OA/MGR |
| SHEF_CODE15 | Shef code (2 characters or NUll) | OA/MGR |
| MANUFACTR_ID | DCPRS manufacturer name (14 characters; must be in RDT) | OA/MGR |
| MODEL_NO | DCPRS model number (16 characters; must be in RDT) | OA/MGR |
| SEASON_ID | Seasonal indicator | OA/MGR |
| NMC_FLAG | * NMC dissemination flag (Y/N) | MGR |
| NMC_DESCRIPTOR | NMC data descriptor (6 characters) Note: must be supplied if NMC_FLAG = 'Y' | MGR |
| ASSIGN_DATE | * Date address assigned to user (YYYYMMDD) | MGR |
| DATE_DEPLOY | Date deployed (YYYYMMDD) | OA/MGR |
| DATE_REDEPLOY | Date redeployed (YYYYMMDD) | OA/MGR |
| PMAINT_NAME | Maintenance official name (24 characters) | OA/MGR |
| PMAINT_PHONE | Maintenance official phone (20 characters) | OA/MGR |
| PMAINT_FTS | Maintenance official FTS phone ( 7 characters) | OA/MGR |
| PMAINT_FAX | Maintenance official FAX phone (20 characters) | OA/MGR |
| PMAINT_TELEX | Maintenance official telex (20 characters) | OA/MGR |
| ERR_FREQ | Consecutive number of failures before reporting error | OPR |

Notes:

(1) Selection is by platform address.

Examples: DISPLAY PDT CE12E34A
UPDATE PDT CE12E34A

(2) Source of parameters:

MGR - parameter may be updated by Manager only
OA - parameter may be updated by Owner Agency only
OPR - parameter may be updated by Operator only
OA/MGR - update by Owner Agency or Manager
MGR/OPR - update by Manager or Operator

(3) * - indicates parameter required by DBMS at definition via DAPS MGR.

(4) In order to make a PDT entry complete (i.e. to prevent a type "N" error), the following parameters must be set (except for 'D' type platforms):

MANUFACTR_ID
MODEL_NO
PRIME_PREAMBLE
SECND_PREAMBLE if SECND_TYPE not " "
CATEGORY
*LOC_CODE
LOC_REGION
SHEF_CODE1
SEASON_ID
PMAINT_NAME
**LATITUDE and LONGITUDE
DATE_DEPLOY

and at least one of the following:

PMAINT_PHONE
PMAINT_FTS
PMAINT_FAX
PMAINT_TELEX

* For LOC_CODE a three character entry is required. For US users their two character State designation or post office code should be entered as follows - **"XX " or " XX" (embedded blanks are needed).** For CANADIAN users the two character providence code should be entered in similar manner to the US users. For all other international users their country's three character postal code should be entered.

** For LATITUDE and LONGITUDE an entry is required for Fixed Bouy, Land based, and Other CATEGORY DCPs.

(5) Null may be specified for character strings as "" or " ".
Example: SECND_ADDR = " "

(6) Be sure to use quotes (") around text fields with embedded blank spaces.

Examples: PMAINT_NAME = MR._JOHN_H._NEWMAN ! no blank spaces

PMAINT_NAME = "MR. JOHN H. NEWMAN" ! note blanks between name

(7) SHEF_CODEs must be entered in the order that they are transmitted. Also, if sensors are added or removed the PDT must be UPDATED.

## USER DESCRIPTION TABLE (UDT) PARAMETERS

| PARAMETER | DESCRIPTION | SOURCE |
|---|---|---|
| USER_TYPE | * Government/nongovt ID (Type of user): F: Fed.Government, S: State, D: Domestic, C: Canada, O: Others | MGR |
| USER_NAME | * User organization name (24 characters) | MGR |
| PARENT_NAME | Parent organization name (24 characters) | MGR |
| MAJOR_NAME | Major organization name (24 characters) | MGR |
| MOA_ID | * Name of organization for MOA (must be in DBMS) | MGR |
| OPR_NAME_LAST | * Operating official's last name (20 characters) | OA/MGR |
| OPR_NAME_FIRST | * Operating official's first name (21 characters) | OA/MGR |
| OPR_ADDR_LINE1 | Operating official's address, first line (Box #, Building, Suite, etc.)(35 characters) | OA/MGR |
| OPR_ADDR_LINE2 | Operating official's address, second line (Street, Avenue, etc.) (35 characters) | OA/MGR |
| OPR_CITY | Operating official's city (25 characters) | OA/MGR |
| OPR_STATE_PROV | Operating official's state or province (30 characters) (also used for country if USER_TYPE = O) | OA/MGR |
| OPR_ZIP_CODE | Operating official's zip code (11 characters) | OA/MGR |
| OPR_PHONE | # Operating official's phone (20 characters) | OA/MGR |
| OPR_FTS | # Operating official's FTS phone (7 characters) | OA/MGR |
| OPR_TELEX | # Operating official's telex (20 characters) | OA/MGR |
| OPR_FAX | # Operating official's FAX phone (20 characters) | OA/MGR |
| PRIME_MEDIUM | * Primary medium: D: DOMSAT, T: Telephone, N: NMC, G: Direct Readout GS | MGR |
| REQUEST_NUM | Number of dissemination requests for request date | OPR |

Notes:

(1) Source of parameters:
- MGR - parameter may be updated by Manager only
- OA - parameter may be updated by Owner Agency only
- OPR - parameter may be updated by Operator only
- OA/MGR - update by Owner Agency or Manager

(2) '*' - indicates parameter is required by DBMS definition.
'#' - indicates at least one phone number is required by DBMS definition.

(3) Be sure to use quotes (") around text fields with embedded blank spaces.

Examples: OPR_NAME_FIRST = JOHN_H. ! no blank spaces
OPR_NAME_FIRST = "JOHN H." ! blank between N and H

## APPENDIX C: DAPS EXAMPLES and/or SAMPLE DISPLAYS

MESSAGE FILE DISPLAY

```
> DISPLAY MESSAGE_FILE PLATFORM_ID CE1200B8
                              *** MESSAGE FILE ***

                         Selection By: PLATFORM_ID
    Platform: CE1200B8       List:                    Channel:
```

```
    Start: 89188/17:41:54    End: 89191/17:41:54        Types: G?WDABTUMINQC
--------------------------------------------------------------------------------


Platform Address: CE1200B8  Channel:  052W Code: G   Start Time: 89191/13:42:18
Uncorrected Addr: CE1200B8  QM:     47-3NN IFPD: FF  End Time:   89191/13:42:22
                            Length:     49           Xmit Time:  89191/15:13:12

H14L

  2267

  2269

  2272

  2274

DISPLAY COMPLETE; USE 'FORWARD' TO VIEW PAGES REMAINING
> F
   133


Platform Address: CE1200B8  Channel:  052W Code: G   Start Time: 89191/09:42:18
Uncorrected Addr: CE1200B8  QM:     47-3NN IFPD: FF  End Time:   89191/09:42:22
                            Length:     49           Xmit Time:  89191/09:42:23

H14L

  2277

  2279

  2279

  2280

   133


Platform Address: CE1200B8  Channel:  052W Code: G   Start Time: 89191/05:42:18
Uncorrected Addr: CE1200B8  QM:     53-2NN IFPD: FF  End Time:   89191/05:42:22
FORWARD COMPLETE; MORE PAGE(S) REMAINING
```

NETWORK LIST DISPLAY

```
> DISPLAY NETWORK_LIST 1
                                *** NETWORK LIST 1 ***
CE1200B8 CE1213CE CE122654 CE127628 CE1286AC CE1295DA CE12A040 CE12B336 CE12C5A6
CE12D6D0 CE12E34A CE12F03C CE1B7074 CE424922 CE425486 CE425A54 CE42611C CE426FCE
CE42726A CE427CB8 CE4282EE CE428C3C CE429198 CE429F4A CE42A402 CE42AAD0 CE42B774
CE42B9A6 CE42C1E4 CE42CF36 CE42D292 CE42DC40 CE42E708 CE42E9DA CE42F47E CE42FAAC
CE430600 CE4308D2 CE50C38E CE50CD5C CE50D0F8 CE50DE2A CE50E562 CE50EBB0 CE50F614
CE50F8C6 CE51046A CE510AB8 CE51171C CE5119CE CE512286 CE512C54 CE514760 CE5149B2
CE515416 CE515AC4 CE51618C CE516F5E CE5172FA CE517C28 CE51827E CE518CAC CE519108
CE519FDA CE51A492 CE51AA40 CE51B7E4 CE51B936 CE5DB678 CE5DB8AA CE5DC0E8 CE5DCE3A
CE5DD39E CE5DDD4C CE5DE604 CE5DE8D6 CE5DF572 CE5DFBA0 CE5E02F8 CE5E0C2A CE5E2414
CE5E2AC6 CE5E3762 CE5E39B0 CE5E41F2 CE5E4F20 CE5E5284 CE5E5C56 CE656C14 CE6571B0
CE7474D4 CE7803D8 CE780D0A CE7810AE CE781E7C CE782534 CE782BE6 CE783642 CE783890
CE7840D2 CE784E00 CE7853A4 CE785D76 CE78663E CE7868EC CE787548 CE787B9A CE7885CC
CE788B1E CE7896BA CE789868 CE78A320 CE78ADF2 CE78B056 CE78BE84 CE78C6C6 CE78C814
CE78D5B0 CE78DB62 CE78E02A CE78EEF8 CE78F35C CE78FD8E CE790122
DISPLAY COMPLETE

> DI UNL 3
                                *** NETWORK LIST 3 ***
CE1200B8 CE1213CE CE122654 CE1286AC CE1295DA CE12A040 CE12B336 CE12C5A6 CE12D6D0
CE12E34A CE12F03C CE1B7074 CE656C14 CE6571B0
DISPLAY COMPLETE
```

PLATFORM CHANGES DISPLAY

```
>DISPLAY PLATFORM_CHANGES
                          *** MODIFIED PLATFORMS ***
180/16:19:30  M PLATFORM 480FA61C DESCRIPTION UPDATED                    B59
180/16:21:22  M PLATFORM 480FA61C DESCRIPTION UPDATED                    B59
180/16:32:19  O PLATFORM CE12E34A DESCRIPTION UPDATED                    B59
180/16:54:49  M PLATFORM B260503C DESCRIPTION ADDED                      B59
180/17:19:30  M PLATFORM B26065A6 DESCRIPTION ADDED                      B59
180/17:26:57  M PLATFORM B2601336 DESCRIPTION ADDED                      B59
180/18:10:57  M PLATFORM B26026AC DESCRIPTION ADDED                      B59
181/13:19:13  M PLATFORM 36430740 DESCRIPTION UPDATED                   B59
181/13:23:29  M PLATFORM 480FA61C DESCRIPTION UPDATED                   B59
181/14:01:36  M PLATFORM CE12E34A DESCRIPTION UPDATED                   B59
181/14:02:34  M PLATFORM 16373D44 DESCRIPTION UPDATED                   B59
181/14:02:47  M PLATFORM 168996CE DESCRIPTION UPDATED                   B59
181/14:05:37  M PLATFORM 1693C07E DESCRIPTION UPDATED                   B59
181/14:25:56  M PLATFORM 16373D44 DESCRIPTION UPDATED                   B59
DISPLAY COMPLETE
```

NOTES: The field shown immediately after the time contains a one ASCII character identifier. The possible characters are defined below:

a. MA DAPS systems manager PDT ADD or UPDATE
b. UA DCS user interactive PDT UPDATE
c. BA DCS user or a manager batch PDT UPDATE

The field shown in the right most part of the display identifies the DAPS log entry from which the Platform_changes were generated. All PDT changes have a "59" code. The "B" or and "A" here indicates the DAPS computer in operation at the time of the ADD or UPDATE.

PLATFORM PARMS DISPLAY

```
> TYPE PLATFORM_PARMS CE1200B8

                    *** PLATFORM CE1200B8 PARAMETERS ***

  Parameter                  Description                          Value
-------------  ------------------------------------  ------------------------
OWNER_ID       User id of owner:                      CEMRO1
PRIME_TYPE     Primary type:                          S
                  S: Self-timed, I: Interrogate,
                  R: Random      D: Dual
PRIME_CHAN     Primary channel (1 - 266):             052
PRIME_SCID     Primary GOES spacecraft assigned:      W
                  E: East, W: West
SECND_ADDR     Secondary address:
SECND_TYPE     Secondary type:                        R
                  R: Random, I: Interrogate, or Null
SECND_CHAN     Secondary channel (1 - 266):           128
SECND_SCID     Secondary GOES spacecraft assigned:    W
                  E: East, W: West
TRIGGER_MODE   Trigger mode:
                  S: Special, T: Test or Null
FIRST_XMT      First trans./interrog.        (HHMMSS): 014200
XMT_PERIOD     Time between trans./interrog. (HHMMSS): 040000
XMT_WINDOW     Transmisssion window (S/D types)(MMSS): 0100
XMT_RATE       Transmission rate (100/300/1200):      0100
MAX_RETRIES    Max. number of interrogation retries:  00
DATA_FORMAT    Data format      (A: ASCII, B: Binary): A
PRIME_PREAMBLE Prime preamble     (L: Long, S: Short): L
SECND_PREAMBLE Secondary preamble (L: Long, S: Short): S
LOC_CODE       Location code:                         ND
LOC_REGION     Location category:                     A
                  A: United States, B: Canada,
                  C: South America, O: Other
LOC_NAME       Location:                        MAN2
LATITUDE       Latitude  (DDMMSS):                    464432
LONGITUDE      Longitude (DDMMSS):                   -1004954
MIN_ELEVATION  Min. elevation angle of platform (DD): 05
CATEGORY      Platform category:                    L
                  F: Fixed-buoy, D: Drifting-buoy,
                  A: Aircraft,   S: Ship,    O: Other,
                  B: Balloon     L: Land-based
MANUFACTR_ID   DCPRS manufacturer name:               SUTRON
MODEL_NO       DCPRS model number:                    8004D
SEASON_ID      Seasonal indicator:                    N
NMC_FLAG       NMC dissemination (Y/N):               Y
NMC_DESCRIPTOR NMC data descriptor:                   PHND30
ASSIGN_DATE    Date address assigned (YYYYMMDD):      00841121
DATE_DEPLOY    Date deployed         (YYYYMMDD):      19890101
DATE_REDEPLOY  Date redeployed       (YYYYMMDD):      00000000
PMAINT_NAME    Maintenance official name:             KAREN WILSON
PMAINT_PHONE   Maintenance official phone:
PMAINT_FTS     Maintenance official FTS phone:        8644606
PMAINT_FAX     Maintenance official FAX phone:
PMAINT_TELEX   Maintenance official telex:
ERR_FREQ       Consequtive failures before error:     006
```

```
                              * SHEF CODES *
SHEF_CODE1:  HG  SHEF_CODE2:     SHEF_CODE3:     SHEF_CODE4:     SHEF_CODE5:
SHEF_CODE6:      SHEF_CODE7:     SHEF_CODE8:     SHEF_CODE9:     SHEF_CODE10:
SHEF_CODE11:     SHEF_CODE12:    SHEF_CODE13:    SHEF_CODE14:    SHEF_CODE15:

Status (Active/Deactive): A
Last active date/time:    89191/17:42:22
Date of last update:      1989166
Updated by:               CEMRO1
Entry complete (Y/N):     Y
Edit number:              00002
TYPE COMPLETE

> DO PDT CE1200B8
BEGIN DOWNLOAD? (Y/N)
>> Y
UPDATE PDT CE1200B8                                &
MAX_RETRIES =   0                                  &
DATA_FORMAT = "A"                                  &
PRIME_PREAMBLE = "L"                               &
SECND_PREAMBLE = "S"                               &
LOC_CODE = "ND "                                   &
LOC_REGION = "A"                                   &
LOC_NAME = "MAN2                             "     &
LATITUDE =   464432                                &
LONGITUDE = -1004954                               &
MIN_ELEVATION =  5                                 &
CATEGORY = "L"                                     &
SHEF_CODE1 =  "HG"                                 &
SHEF_CODE2 =  "  "                                 &
      .
      .
SHEF_CODE15 = "  "                                 &
MANUFACTR_ID = "SUTRON        "                    &
MODEL_NO = "8004D           "                      &
SEASON_ID = "N"                                    &
DATE_DEPLOY = 19890101                             &
DATE_REDEPLOY = 00000000                           &
PMAINT_NAME = "KAREN WILSON            "           &
PMAINT_PHONE = "                     "             &
PMAINT_FTS = "8644606"                             &
PMAINT_FAX = "                     "               &
PMAINT_TELEX = "                     "             &
END

DOWNLOAD COMPLETE
```

## RADIO DESCRIPTION DISPLAY

```
> DISPLAY RADIO_DESCRIPTION
                    *** RADIO DESCRIPTION TABLE SUMMARY ***

 MANUFACTURER       MODEL NUMBER      DATE CERTIFIED     STATUS
 ------------       ------------      --------------     ------

AMERICAN ELEC.    DCP-11R               1977/10/01          N
AMERICAN ELEC.    DCP-II                1977/02/03          N
BALL BROTHERS     GOES/GDCP             1975/04/01          N
BRISTOL AEROSP    695-07                1975/12/12          N
BRISTOL AEROSP    696-07-02-1200        1979/02/27          N
BRISTOL AEROSP    697-07700-1           1984/12/06          N
BRISTOL AEROSP    697-07700-3           1984/12/06          N
CEIS ESPACE       BM-18/20(20W)         1987/06/21          N
CEIS ESPACE       BM-18/40(40W)         1987/06/21          N
CEIS ESPACE       BM-18/5(5W)           1987/06/21          N
DATAWARE DEV      WRANSAC-G-SUB         1981/05/01          N
HANDAR            520A                  1977/02/17          N
HANDAR            521A                  1977/02/17          N
HANDAR            522A                  1977/11/11          N
HANDAR            523A                  1979/06/06          N
HANDAR            524A                  1979/06/06          N
HANDAR            524A(R/R)             1981/06/15          N
DISPLAY COMPLETE; USE 'FORWARD' TO VIEW PAGES REMAINING

> DI RDT HANDAR 520A
                          *** RADIO DESCRIPTION ***

          Manufacturer: HANDAR          Model Number: 520A

Data Rate (bps):  100                   Power (watts): 10
Platform types supported:               Antenna Type:  U
    Self-Timed:  Y                          O: Omni    M: Micro-patch
    Interrogate: N                          Y: Yagi    E: Hemispherical
    Random:      N                          H: Helix   A: Aircraft
    Dual:        N                          U: Unknown
Certification Status: N                 Antenna Model: UKN
    N: Nominal  P: Pending                  SYN Synergetics  COM: Comant
    R: Requires Recertification             ANX: Anixter      HAN: Handar
Applicable Certification Standards:         RAY: Rayan        STA: Starec
    S2-200-400: Y   IDCS-ANNEX-4: N        SEA: Seavey       CHU: CHU
    S24-010:    N   Spare 1:               CUS: Cushcraft    TRA: Transco
    S24-011:    N   Spare 2:               UNK: Unknown
    S24-012:    N   Spare 3:
Date Certified (YYYYMMDD): 19770217
Comments:


DISPLAY COMPLETE; USE 'FORWARD' TO VIEW PAGES REMAINING
```

USER PARMS DISPLAY

```
> TYPE USER_PARMS
                        *** USER CEMRO1 DESCRIPTION ***

Parameter              Description                        Value
---------      --------------------------  ---------------------------------
USER_TYPE      User Type                   F
USER_NAME      User organization name      OMAHA DISTRICT
PARENT_NAME    Parent organization name    CORPS OF ENGINEERS
MAJOR_NAME     Major organization name     DEPT OF DEFENSE
MOA_ID         Name of organization for MOA CORPS OF ENGINEERS (DOD)
OPR_NAME_LAST  Oper. official's last name  WILSON
OPR_NAME_FIRST Oper. official's first name MS. KAREN
OPR_ADDR_LINE1 Operating official's address
OPR_ADDR_LINE2 Operating official's address 215 NORTH 17TH STREET
OPR_CITY       Operating official's city   OMAHA
OPR_STATE_PROV Oper. official's state/prov. NE
OPR_ZIP_CODE   Oper. official's zip code   68102-4978
OPR_PHONE      Operating official's phone  (402)221-4606
OPR_FTS        Operating official's FTS    8644606
OPR_TELEX      Operating official's telex
OPR_FAX        Operating official's FAX
PRIME_MEDIUM   Primary medium              G

Date/time of last dissemination for list 1: 1989188 171838
Date/time of last dissemination for list 2: 1989188 111424
Date/time of last dissemination for list 3: 1989188 110252
Date/time of last dissemination for list 4: 1989188 171642
Date/time of last dissemination for list 5: 0000000 000000

Date/time of last user signoff:             1989188 204744
Date of last user dissemination request:    1989188
Number of dissemination requests:           000008  (REQUEST_NUM)
Date of last update to this UDT entry:      1989188
Last updated by:                            OPR
TYPE COMPLETE
```

SAMPLE SUBMIT WITH RESULTS IN MAIL

```
AOS/VS 7.64.00.00 / EXEC-32 7.64.00.00  23-Nov-89 16:09:48      @CON29
Username: CEMRO1
Password:
------
        Copyright (C) Data General Corporation, 1980 - 1988
        All rights reserved.
        Licensed material -- property of Data General Corporation

        This software is made available solely pursuant to the
        terms of a DGC license agreement which governs its use.

--------
Last message change     22-Nov-89       15:41:24

DAPS SYSTEM B
   Information on enhancements/modifications for DAPS dial-in users is
   available on the DAPS_NEWS display. DAPS_NEWS last updated 11/22/89.

--------
Most recent log-on       23-Nov-89       14:41:32

*** YOU HAVE MAIL ***

                              ***  BULLETINS  ***

DISPLAY COMPLETE
> SU
>>UPDATE PDT 536004E4                                & ! FIRST DAPS COMMAND
>>LOC_NAME = "THE POINT OF ROCKS IN MD       "      & ! PDT FIELD ENTRY
>>PMAINT_NAME = " CALL MIKE'S SERVICING  "          & ! PDT FIELD ENTRY
>>PMAINT_PHONE = " (301)7638063       "            & ! PDT FIELD ENTRY
>>PMAINT_FTS = "       "                           & ! PDT FIELD ENTRY
>>END                                               ! END PDT UPDATE
>>UPDATE PDT 53601792                              & ! SECOND DAPS COMMAND
>>LOC_NAME = "THE LOCK RAVEN RESEVOIR        "     & ! PDT FIELD ENTRY
>>PMAINT_NAME = " CALL CARL'S  SERVICING "          & ! PDT FIELD ENTRY
>>PMAINT_PHONE = " (301)7638326       "            & ! PDT FIELD ENTRY
>>PMAINT_FTS = "       "                           & ! PDT FIELD ENTRY
>>END                                               ! END PDT UPDATE
>>ADD UNL 2 &                                       ! THIRD DAPS COMMAND
>>CE1200B8   CE1213CE   CE122654   &                ! THREE DCP ADDRESSES
>>CE12C5A6   CE12D6D0   CE12E34A   &                ! THREE DCP ADDRESSES
>>CE7474D4   CE7803D8   CE70D0A                     ! THREE DCP ADDRESSES
>>ADD UNL 3 &                                       ! FOURTH DAPS COMMAND
>>CE1200B8   CE1213CE   CE122654   &                ! THREE DCP ADDRESSES
>>CE12C5A6   CE12D6D0   CE12E34A                    ! THREE DCP ADDRESSES
>>BYE                                               ! END OF BATCH FILE
>>>                                                 ! COMPLETE SUBMIT
SUBMIT COMPLETE
>
```

```
>
*** YOU HAVE NEW MAIL ***

> DI MAIL

----------------------------
| Date:   89327/16:12:21    |
| Source: BATCH             |
----------------------------

                             *** BATCH RESULTS ***
PLATFORM 536004E4 DESCRIPTION UPDATED
PLATFORM 53601792 DESCRIPTION UPDATED
ADD NETWORK_LIST COMPLETE
ADD NETWORK_LIST COMPLETE                                                    DISPLAY
COMPLETE

> DO UDT
BEGIN DOWNLOAD? (Y/N)
>> Y
UPDATE UDT                                          &
OPR_NAME_LAST = "WILSON              "              &
OPR_NAME_FIRST = "MS. KAREN            "            &
OPR_ADDR_LINE1 = "                                 " &
OPR_ADDR_LINE2 = "215 NORTH 17TH STREET            " &
OPR_CITY = "OMAHA                    "             &
OPR_STATE_PROV = "NE                               " &
OPR_ZIP_CODE = "68102-4978 "                        &
OPR_PHONE = "(402)221-4606       "                  &
OPR_FTS = "8644606"                                 &
OPR_TELEX = "                      "                &
OPR_FAX = "                     "                   &
END

DOWNLOAD COMPLETE
```

PLATFORM SUMMARY DISPLAY

REPORT DATE/TIME:
12-11-89  18:53:07

DCP PERFORMANCE SUMMARY REPORT FOR USER CSUATS
NOVEMBER  1989

| ADDRESS | CHAN-T | CUR A/D | CHGS A/D | A/D DAY | #ERR FREE | #WITH ERR | #MISS | RECVD % | DATA A/L | TIME A/L |
|---|---|---|---|---|---|---|---|---|---|---|
| 21000078 | 40W-S | A | 0 | 282 | 240 | 0 | 0 | 86.7 | 402 | 40 |
| | | | | #WRONG CHAN = | 0 | #MULTI CHAN = | 0 | | | |
| 2100130E | 40W-S | A | 0 | 282 | 166 | 72 | 2 | 99.6 | 340 | 35 |
| | | | | #WRONG CHAN = | 0 | #MULTI CHAN = | 0 | | | |
| 21002694 | 44W-S | A | 0 | 282 | 240 | 0 | 0 | 86.7 | 318 | 33 |
| | | | | #WRONG CHAN = | 0 | #MULTI CHAN = | 0 | | | |

USER SUBTOTALS:  TOTAL DCPS =  3

| TYP | #DCPS | #ERR FREE | #WITH ERR | RECVD % | #MISS | DATA A/L | TIME A/L | WRONG CHANS | MULTI CHANS |
|---|---|---|---|---|---|---|---|---|---|
| S | 3 | 646 | 72 | 91.0 | 2 | 353 | 36 | 0 | 0 |

Explanation of Fields:

ADDRESS - DCP address. A '*' indicates an incomplete PDT entry. If DCP has a secondary type, secondary statistics are reported on next line. If secondary address is same as primary address it will be blank.

CHAN-T - DCS channel number, GOES spacecraft (E/W), channel type (S,I,R or D).

CUR A/D - Current status: A - Active, D - Deactive.

CHGS A/D - Number of changes of status during the month.

A/D - First day the DCP was active if status is 'A'. Last DAY day the DCP was active if status is 'D'.

#ERR - Number of messages received with no associated FREE error(s).

WITH - Number of messages received with associated error(s) ERR such as schedule error, PDT not complete error, ect.

#MISS - Number of missing messages.

RECVD - Percentage of expected messages received.

DATA A/L - Average length of messages in bytes.

TIME A/L - Average length of message in seconds.

TYP - DCP type (S,I,R or D).

WRONG CHANS - Number of messages received on wrong channel.

MULTI CHANS - Number of messages received on multiple channels.

USER UTILIZATION DISPLAY

REPORT DATE/TIME:
12-11-89  18:54:53

DAPS
USER CSUATS DCS RESOURCE UTLIZATION
NOVEMBER  1989

| CHAN-T | #DCPS ASGND | % ACT | TIME ASGND | %TIM USED | ERROR FREE | WITH ERROR | EXP MSGS | MISS MSGS | GOOD MSGS | BAD MSGS |
|---|---|---|---|---|---|---|---|---|---|---|
| 40W-S | 2 | 100.0 | 28800 | 58.2 | 406 | 72 | 480 | 2 | 442 | 5 |
| 44W-S | 1 | 100.0 | 14400 | 48.4 | 240 | 0 | 240 | 0 | 208 | 0 |
| EAST TOTAL | 0 | .0 | 0 | .0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WEST TOTAL | 3 | 100.0 | 43200 | 54.9 | 646 | 72 | 720 | 2 | 650 | 5 |
| TOTAL | 3 | 100.0 | 43200 | 54.9 | 646 | 72 | 720 | 2 | 650 | 0 |

Explanation of Fields:

CHAN-T - DCS channel number, GOES spacecraft (E/W), channel type (S,I,R or D)

#DCPS ASGND - Number of DCPs assigned to the channel.

% - Percentage of DCPs assigned to the channel that are ACT active.

TIME ASGND - Number of seconds assigned to the channel for the month

%TIM USED - Percentage of assigned time used on channel.

ERROR FREE - Number of messages received with no associated errors.

WITH - Number of messages received with associated error(s) ERROR such as a schedule error, PDT entry not complete, ect.

EXP - Number of expected messages; zero for random (R) type MSGS channels.

MISS MSGS - Number of missing messages.

GOOD MSGS - Number of messages received without parity errors.

BAD MSGS - Number of messages received with parity errors.

## APPENDIX D: DOWNLOADED DCP MESSAGE FORMAT

## DOWNLOADED DCP MESSAGE FORMAT

| FIELD | SIZE (bytes) | CONTENTS |
|---|---|---|
| ADDRESS | 8 | DCP address |
| YEAR | 2 | Year message was received |
| DOY | 3 | Day of year message received |
| HOUR | 2 | Hour message was received |
| MINUTE | 2 | Minute message was received |
| SECOND | 2 | Second message was received |
| FAILURE_CODE | 1 | Code for message (see Notes) |
| SIGNAL_STRENGTH | 2 | DAMS quality measurement |
| FREQUENCY_OFFSET | 2 | DAMS quality measurement |
| MODULATION_INDEX | 1 | DAMS quality measurement |
| DATA_QUALITY | 1 | DAMS quality measurement |
| CHANNEL_RECEIVED | 3 | Channel message received on |
| GOES_SPACECRAFT | 1 | GOES spacecraft used |
| UPLINK_CARRIER_STATUS | 2 | Uplink carrier status |
| MESSAGE_DATA_LENGTH | 5 | Message length (bytes) (see Notes) |
| MESSAGE_DATA | 15750 (max.) | Message data (variable length) |

Notes:

(1) All fields are ASCII.
(2) When downloaded, all messages in message file are separated by three (3) NEW LINE <NL> characters.

(3) FAILURE_CODE will contain one of the following characters:

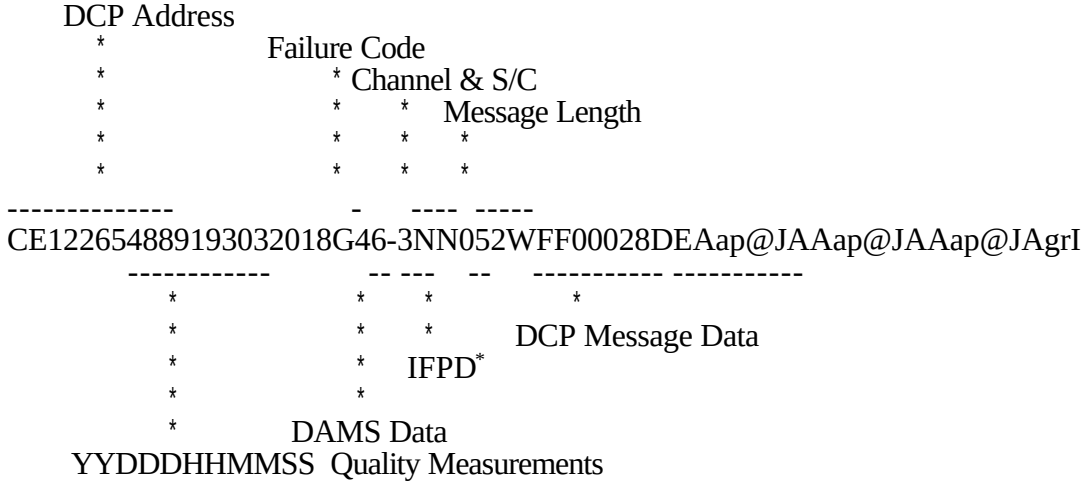
G - Good message
? - Message received with parity errors
W - Message received on wrong channel
D - Message received on multiple channels (duplicate)
A - Message received with address error(s) (correctable)

T - Message received late/early (time error)
U - Unexpected message
M - Missing message
N - PDT entry for this platform is not complete

(4) MESSAGE_DATA_LENGTH indicates the total length of the message as received. Because the first four bytes of the message are the binary DCP address which is not downloaded, the actual number of bytes transferred is MESSAGE_DATA_LENGTH - 4.

**NOTE: The MESSAGE_DATA_LENGTH contains all DCP data as received, including ASCII space, non-printable, and characters with parity errors. Should a problem be detected in the numerical count first check the character count using the DAPS DISPLAY MSG command for verification of a problem.**

(5) The following example shows a downloaded DCP message:




* NOTE: The DAPS IFPD interface is not operational at this time. Therefore DCS users should expect an "FF" in this part of the message header.

## APPENDIX F: LIST OF ACRONYMS
## LIST OF ACRONYMS

| | |
|---|---|
| ANSI | American National Standard Institute |
| ARM | Abnormal Response Messages |
| ASCII | American National Standard Code For Information Interchange |
| BCH | Bose, Ray-Chaudhuri, Hocquengheim |
| BER | Bit Error Rate |
| BPSK | Binary Phase Shift Keying |
| CDA | Command and Data Acquisition |
| COTR | Contracting Officer's Technical Representative |
| CRC | Cyclic Redundancy Code |
| CRT | Cathode Ray Tube |
| D | Dual |
| DAMS | Data Acquisition and Monitoring System |
| DAPS | Data Collection System Automatic Processing Subsystem |
| DBMS | Data Base Management System |
| DCS | Data Collection System |
| DCP | Data Collection Platform |
| DCPI | Data Collection Platform Interrogation |
| DCPRS | Data Collection Platform Radio Set |
| DEMOD | Demodulator |
| DOC | Department of Commerce |
| DOMSAT | Domestic Communications Satellite |
| DPS | Data Processing System |
| DROT | DOMSAT Receive Only Terminal |
| FCE | Frequency Control Electronics |
| GMS | Global Message Storage |
| GMT | Greenwich Mean Time |
| GOES | Geostationary Operational Environmental Satellite |
| Hz | Hertz |
| I | Interrogate |
| IM | Interrogate Modulator |
| ID | Identifier |
| IFPD | Intermediate Frequency Presence Detector |
| I/O | Input/Output |
| MB | Megabyte (Million 8-bit words) |
| MF | Message File |
| MNP | Microcom Network Protocal |
| MOA | Memorandum of Agreement |
| MSG | Message |
| NASA | National Aeronautics and Space Administration |
| NWS | National Weather Service Telecommunications Gateway |
| NESDIS | National Environmental Satellite, Data, and Information Service |
| NIST | National Institute for Standards and Technology (formerly NBS) |
| NOAA | National Oceanic and Atmospheric Administration |
| NWS | National Weather Service |

| | |
|---|---|
| O & M | Operations and Maintenance |
| PDT | Platform Description Table |
| RF | Radio Frequency |
| R | Random Reporting |
| s | Seconds |
| S/C | Spacecraft |
| S | Self-Timed |
| SOL | System Outage Log |
| SHS | System Hardware Status |
| TBD | To Be Determined |
| TT | Test Transmitter |
| UDT | User Description Table |
| UIM | User Interface Manual |
| WWB | World Weather Building |
| UNL | User Network List |
| VCXO | Variable Crystal Oscillator |

# APPENDIX G: GLOSSARY

Active

An active data collection platform is one that is reporting regularly as designed. Interrogate and Self-Timed platforms are considered active if they report at least once in every 48 hour period. A Random Reporting platform is considered active if it is considered active by its owner and has reported at least once. Platforms that are not active are called deactive.

ALOHA

A packet-broadcasting technique whereby users transmit in a random fashion at any time they desire. If they receive their transmissions and no errors are detected, the transmission is assumed to be successful. If errors are detected, such as when packets interfere with each other, the packet(s) must be retransmitted after a random delay to avoid further interference.

Batch

The processing mode wherein a set of transactions (commands, data base updates, report generation requests, etc.) are submitted to the computer system for subsequent processing without further direst interaction with the submitter. In addition to the processing of the transactions, a log of actions taken and error conditions, if any, is normally produced and returned to the user after the processing is complete. Compare interactive.

BCH

Bose, Ray-Chaudhuri, and Hocquengheim. The cyclic code used in data collection platform addresses to avoid mistakes in platform identification and to improve the effective bit error rate and probability of undetected error. The BCH codes and addresses employed are described in NOAA Technical Memorandum NESS (NESDIS) 82, "The GOES Data Collection System Platform Address Code".

Deactive

A deactive data collection platform is one that has not reported to the DAPS in over a 48 hour period.

Electronic Mail

Limited transmission of messages between the DCS manager, operator, and users, primarily for information dissemination and message retransmission requests.

Intermediate Frequency Presence Detector (IFPD)

A DAPS interface from which the status of all RF carriers and several key GOES DCS signals are read at periodic intervals. The IFPD measurements are included with each DCP message received via the DAPS. This feature is presently not operational.

Improved Random Reporting

Random reporting using four-subchannel demodulator multiplexors, 3.0 KHz channels and 300 bps transmission rates.

Interactive

The processing mode wherein transactions (commands, data base updates, report generation requests, etc.) are individually submitted to the computer system for immediate processing in response to prompts, by making

selections from a menu, or by filling blanks in a form. Interactive processing normally is accomplished through a display terminal and returns acknowledgments and error messages directly to the submitter through that terminal. Compare batch.

Interrogate

The reporting mode wherein the data collection platform reports only when a signal containing that platform's address is transmitted to the platform. The signal is called an interrogation. Compare Random and Self-Timed.

Major Organization

The highest organizational level of a DCS user, for example, Department of the Interior.

Manager

The administrator of the DCS, whose offices are located in the Washington DC metropolitan area.

Mirror

To maintain two data files that are identical in content and structure.

NWS Circuit

National Weather Service Circuit (sometimes referred to as the NMC Circuit). In this context, a communications switch providing for dissemination of DCS data to most NWS GOES DCS users via one dedicated communications circuit from the DAPS to the NWS Telecommunications Gateway center.

Off-Line

A processor or other device that is not active in an systems' operation and not available for use by the system. Such a device may be in an idle condition or may be performing functions other than those specifically intended for its application in that system.

On-Line

A processor or other device that is actively performing or available to perform its intended functions within a system.

Operator/Technician

The direct controller of the GOES DAPS, whose offices are located with the DCS/DAPS system hardware at Wallops CDA Station, Wallops Station, VA. The operator/technician's duties include monitoring and operation of the DCS and DAPS hardware and interfaces, response and appropriate corrective actions in the event of alarm conditions, and repair and maintenance of government-serviceable equipment.

Owner

A primary user in the DCS responsible for data collection platform(s). Owners are also users of the DCS and, as such, have User IDs, Parent Organizations, and Major Organizations, also defined herein.

Parent Organization

The intermediate organizational level of a DCS user, for example, U.S. Geological Survey (USGS) is part of the Department of Interior and above the USGS field offices (users) of the data.

DCP Preamble

Long: 7.65s preceding start of data.
Short: 1.13s preceding start of data.

Primary DCPRS Channel

The channel upon which a data collection platform transmits when in the mode given by its Primary DCPRS Type.

Primary DCPRS Type

The reporting mode (Interrogate, Self-Timed, or Random) normally employed by this data collection platform.

Queue

A waiting list of events or tasks that are to be performed in an prescribed order.

Random Reporting

The reporting mode wherein the data collection platform reports at randomized times, often in response to sensor stimulus, e.g. when measurement thresholds are exceeded. These DCP's operate on 1.5 KHz channels at a 100 bps transmit rate. Compare Interrogate and Self-Timed.

Scheduler

DAPS software for scheduling, monitoring, and controlling input message processing, interrogations, and test transmissions.

Seasonal Indicator

A data collection platform attribute indicating that the platform is only functional during a particular season of the year.

Secondary DCPRS Channel

The channel upon which a data collection platform transmits when in the mode given by its Secondary DCPRS Type.

Secondary DCPRS Type

The reporting mode is either Interrogate or Random and is used as a backup to the primary mode to increase reliability.

Self-Timed

The reporting mode wherein the data collection platform reports according to a prescribed schedule. Compare Interrogate and Random.

Shef Codes

A two character code which describes the DCP message data content. These codes enable users other than the platform owner to determine whether they desire to include a non-owned DCP in their Network retrieval list.

Transmission Window

The time interval during which Self-Timed data collection platform is scheduled to transmit a message to the

DCS.

User

The name of an organizational element that uses the Data Collection System. Users may also be owners of data collection platforms. The names of users' higher organizational levels are entered as Parent Organizations and Major Organizations. Each user has an associated User ID.

User ID

A short name by which all users are known by the DAPS. User IDs are six characters in length and are recognizable abbreviations of the corresponding organizational element names.